Lectures
ON THE
PHYSIOLOGICAL PATHOLOGY OF THE BRAIN.

Delivered at the Royal College of Physicians of London, July, 1876,

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LECTURE I.—PART I.

ON A GREAT VARIETY OF FORMS OF PARALYSIS DUE TO DISEASE IN ONE SIDE OF THE BRAIN.*

Received views about the mode of production of paralysis—Clinical facts are most frequently in opposition to those views—Case showing how a variety of symptoms, some of which imply an influence exerted on the two sides of the body, may be caused by a small lesion of the convolutions on one side—Value of arguments in favour of the classic views about paralysis—The secondary degeneration in parts of the base of the brain and in the spinal cord cannot show that paralysis arises as is admitted.

MR. PRESIDENT AND GENTLEMEN,—Happy am I to find myself again in the midst of such an audience. Fourteen years have passed since I had the honour of delivering here six lectures (the Gulstonian of 1862) on a subject—the origin of symptoms of brain disease—which had been for a very long time very attractive to me. Since then I believe I have made considerable progress about it, and I can now, with a great deal less diffidence than I had then, undertake to show that our universally admitted views about the mode of production of paralysis and the signification of that symptom must be given up, and that altogether new views must be received in place of the old notions we have been taught to believe.

If we compare the teachings of our books with what nature is constantly showing, we find that there is no agreement at all between those two sources of learning. Books and our medical school professors consider that between the seat of the will (which is supposed to be either the corpora striata or some convolutions of the brain, or both these parts) and the muscles of the limbs, the face, and other parts, there is a set of almost continuous nerve-fibres passing from the cerebral lobes into the crura cerebri, and decussating, according to some writers, in the pons Varolii and in the medulla oblongata, and, according to others, only in this last nervous centre, those of the right side of the brain going into the left side of the spinal cord, and those of the left side of the brain into the right side of the cord. This being supposed to be true, paralysis when it appears in one side of the body, as an effect of disease in the other side of the brain, is considered as resulting from the alteration of conductors or of the so-called motor ganglia, or psycho-motor centres. So long as the location of the disease happens to be in those parts, which anatomically constitute the pretended motor tract (and it is in some of those parts of the brain that disease of certain kinds most frequently exists), there is an appearance of proof of the correctness of that view. Such is the case also when paralysis appears with a lesion of the pretended psycho-motor centres. But cases favourable to the classic views are not the only ones we meet. Far from that, as will be amply shown in this and the two next lectures.

Since I gave strong arguments against any view more or less similar to the well-known clavier theory in my Gulstonian lectures, several able physiologists and physicians have made use of some of those arguments against the admitted views on the mode of production of paralysis. I will only refer to a very interesting paper of Professor Cleland,* and to many papers or articles published by Dr. J. Hughlings Jackson, who, feeling how faulty the old views are, has tried by ingenious, but quite insufficient, additions to them to prevent their decay. One of the most decisive arguments I brought forward is, that we do not find, as the theory I contradict absolutely requires, that a lesion to a limited number of fibres, and always the same in many cases, produces paralysis always in a certain number of muscles, and constantly in the same. This is decisive, notwithstanding the ingenious supposition of Dr. J. H. Jackson to explain the contradiction nature gives to the clavier theory, as I will show elsewhere that this hypothesis is not borne out by facts, even if it could (and it cannot) be applied to the crura cerebri and the pons Varolii as well as it has seemed to its able author to be applicable to the corpora striata.

What clinical observation—and that is what I have called nature—teaches is radically different from what is taught in medical schools and books; it shows that paralysis, as an effect of brain-disease, as regards its place, its extent, its degree, its duration, and its association with other symptoms, has no absolute relation with the seat, the degree and extent, the kind and the rapidity or slowness of appearance of disease in or injury to the brain. I will soon begin to show that we must admit that paralysis can appear or not, and in one side or the other side of the body, just like convulsions, from disease in one and the same side of the brain. I will soon show that, as I have stated elsewhere,* paralysis appears in cases of brain-disease not because conductors or centres employed in voluntary movements† are destroyed and lose their function, but because an irritation starting from the diseased part or its neighbourhood goes to a more or less large number of nerve-cells scattered in many places in the nervous centres, and stops their activity. This mode of production of paralysis does not belong to it alone; it is by a similar mechanism that loss of consciousness, amaurosis, anæsthesia, aphasia, and every other kind of loss of function, appears in cases of localised brain-disease. In all these cases an irritation acting at a distance from the initial place (that where disease exists) is the cause of these various effects, and so it is when disease acts in producing active manifestations instead of arresting the activity of certain parts. The following case may serve as a good illustration of the two kinds of effects of an irritation of a small part of the brain.

CASE 1.—A boy, eleven years old, is suddenly seized with *vomiting;* half an hour after *convulsive movements occur in his head, his limbs, and his eyes; he utters inarticulate shrieks, his pulse is hard and frequent, his pupils contracted, his lower limbs and the trunk of his body become cold; a few hours after his pupils dilate, his pulse becomes weak and small, remaining frequent, and he dies a little later.*

We find that the initial cause of all those symptoms was a slight hæmorrhage over one or two convolutions of the right middle lobe, where a clot as soft as jelly and the size of half a walnut was lying on the surface of the brain, the neighbouring tissue being infiltrated with colourless serosity.‡ There was, then, from such a trifling cause—first, vomiting (i. e., a motor influence exerted on the stomach, diaphragm, and other parts, either directly or through the medulla oblongata); secondly, not local convulsions only, as localisers would have it, but general convulsions of limbs, head, and eyes; thirdly, an influence producing contraction of bloodvessels in the trunk and lower limbs, either through a direct action on these vessels or an indirect one reaching their centres of origin; fourthly, a contraction at first, then a dilatation of the pupils of both eyes, so that there was either a direct influence on them, or some action on the centres of origin of the third pair of cranial nerves, or on the origin of some filaments of the cervical sympathetic nerve; fifthly, an exciting influence increasing the movements of the heart and afterwards producing the reverse—i. e., a diminution of the action of that organ; sixthly, some influence causing death in less than twelve hours.

This case is only one out of thousands showing how various can be the effects of irritation of even a small part of the brain, and showing also that the two sides of the

* Most of the details contained in the lecture we now publish were not mentioned by the lecturer in delivering it, but the line of argument was the same in the speech as it is here.

† Journal of Anat. and Physiol., vol. v., p. 104.

* See the Introductory Lecture I published in the last number of THE LANCET.

† I need not say that I do not speak here of paralysis of the cranial nerves in cases of a lesion existing where they enter the base of the brain and before they reach nerve-cells.

‡ This case was published by Dr. Campbell in the London Medical Gazette, May, 1845.

body may be affected considerably by a lesion of one or two convolutions only.

Such facts, constantly occurring, should have long ago led to the admission that at least certain symptoms do not depend on the special powers of the part diseased, but on the transmission, from such a part or its neighbourhood, of an irritation which, acting on nerve-cells at a great distance, sets them in action.

There was no paralysis noticed in that case, but there might have been. When I treat of the convolutions of the brain in their relations to paralysis, I will show that if certain of them have more power than others in causing a loss of voluntary movement, most of them, so far as I know, and very likely all of them, have that power. How can such a fact exist if the views that are admitted as regards the mode of production of paralysis are true? These admitted views, I need hardly say, consist in considering paralysis in brain disease as an effect of the loss of function of the part we find altered in its structure. This, as already stated, seems to be in perfect harmony with facts so long as we find disease existing in one or the other of the two following sets of parts: (1) the purely conducting parts—i.e., the fibres extending through the medulla oblongata, the pons Varolii, the crura cerebri, the internal capsule and its radiations towards the convolutions; (2) the supposed central organs employed in voluntary movements—i.e., the corpora striata and certain convolutions, which, according to the experimental and the clinical facts of Fritsch, Hitzig, Dr. Ferrier, Dr. J. Hughlings Jackson, Professor Charcot, and others, are the centres for the movements of the limbs, the face, and other parts. The arguments on which the supposition is grounded that certain convolutions possess special psycho-motor functions I will discuss in another lecture. For the present I will merely say that the two great reasons generally given to maintain the view that paralysis is caused by loss of function of the part where we find disease of the brain are in complete opposition to an immense number of facts. These reasons are: first, that a lesion in the pretended motor tract produces paralysis; secondly, that when disease exists either in the convolutions that are just in front and back of the fissure of Rolando, or in the corpus striatum, there is often an alteration which is considered as proving that these parts are motor centres. The first of these reasons I will speak of in a moment. As regards the second, it is based on the supposition that the motor tract lies in the crura cerebri, the front part of the pons Varolii, and the anterior pyramids. All along that so-called motor tract a peculiar degeneration that has descended either from the convolutions or from the corpus striatum is found, and at the place of decussation of the anterior pyramids this alteration, if located in the right half of the base of the brain, passes into the left half of the spinal cord and exists there in the posterior part of the lateral column. But what is the worth of all that if, as I have already proved in a lecture on paralysis appearing on the side of disease of the brain,* the anterior pyramids are not the only channels—if they are channels at all—of the order of the will to muscles, and if, as we know, the lateral columns of the spinal cord, and especially their posterior part, are not motor conductors?

* THE LANCET, January, 1876, p. 160.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A Quarterly Court of the Directors of the Society was held, by kind permission of the Royal Medical and Chirurgical Society, in their rooms, Berners-street, on Wednesday, July 12th, at 8 P.M. The President, Sir George Burrows, Bart., was in the chair. The sum of £1271 10s. was voted to sixty widows and twelve children, divided according to the exigency of each case. The expenses of the quarter amounted to £44. Two fresh applications for assistance were admitted; two new members elected. The directors, acting under a special bye-law, recommended that at the next general meeting, in October a grant of £20 should be made to the daughter of a late eminent physician (formerly a member of the Society) in great distress from loss of income, and suffering from incurable disease.

Lectures
ON
QUESTIONS IN OPHTHALMIC SURGERY.

Delivered at the Royal College of Surgeons,

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LECTURE II.—PART I.
ON GLAUCOMA.

MR. PRESIDENT,—In a Manual of Ophthalmic Medicine and Surgery, published in 1865 by Mr. Wharton Jones, I find the following definition of glaucoma:—"Glaucoma is a name applied to a peculiar greenish opaque appearance, deep behind the pupil, changing its seat according to the direction in which the light is admitted, being always most concentrated on the side opposite the light. This appearance occurs in very different degrees, from a greenish-grey reflection barely discernible, to a grass-green opacity."

The same author divides glaucoma into five groups—namely:—1. Simple glaucoma. 2. Glaucoma with cataract. 3. Chronic glaucoma with amaurosis. 4. Acute glaucoma with amaurosis. 5. Chronic glaucoma, with amaurosis and cataract.

He defines simple glaucoma as a state in which "we have the glaucomatous appearance behind the pupil, but the eye, in other respects, appears healthy, the cornea clear, the pupil lively, the consistence of the eyeball normal, and vision—with the exception that it may be presbyopic or myopic—good." He continues that simple glaucoma "is of frequent occurrence in old people. It continues for life, but does not necessarily become complicated either with cataract or amaurosis." He treats these latter conditions, it will be observed, as complications of a colour phenomenon which he regards as the essence of "glaucoma"; and he afterwards refers his three amaurotic groups to the occurrence, in glaucomatous eyes, of acute or chronic "arthritic posterior internal ophthalmia."

I have quoted these definitions and opinions, Mr. President, merely that they may serve as landmarks from which to measure the subsequent progress of thought, and the change which has occurred in the current meaning of language. If we regard the question from the point of view of etymology alone, there can be no doubt that Mr. Wharton Jones's definition of simple glaucoma must still be substantially correct, and that this phrase is properly applied to denote a mere colour phenomenon. But, as a matter of fact, the colour phenomenon does not require a phrase; it is an accidental consequence of alterations which are natural or physiological, which take place, to a greater or less extent, in all eyes during the decline of life, and which are made up of two chief factors: first, that the crystalline lens loses its original limpidity and acquires somewhat of an amber tint; secondly, that the choroid undergoes changes in its pigmentation and in its blood-supply. There is, therefore, more light returned from the fundus oculi to the observer, and this light comes to him through a coloured medium. The condition is a simple senile change, and there is no connexion between this change and those which so often produce loss of vision. The latter are distinctly states of disease, and the name glaucoma, although it has no real applicability to them, has been retained in order to express them. Its employment in this way has now become so completely an established custom, both in this country and on the Continent, that there is little or no prospect of its ever being superseded; and it is only necessary to remember that the word, in its modern and accepted signification, has no reference to colour, but is used to denote a certain group of morbid conditions by which loss of sight is commonly produced.

The essential character of these morbid conditions, in every case, however much the external signs may at first

appear to vary, is an increase in the fluid contents of the eyeball in relation to the size of the containing cavity; and this increase, by distending the ocular tunics, produces a state of hardness or heightened tension. The tension of the eye is best estimated by causing the patient to look downwards, with drooping or slightly closed lids, and by then placing the tips of the two fore-fingers upon the upper lid, as far under the margin of the orbit as they can be carried. If the eyeball is then steadied or supported with one finger, and lightly pressed upon with the other, it will, if healthy, be found to dimple or yield under moderate pressure, with a peculiar elastic resistance which each observer may learn to estimate upon himself. It is true that the tension of apparently healthy eyes may vary within rather wide limits; but, notwithstanding this, there is seldom any practical difficulty in determining whether the tension in any given case does or does not overstep the limits of physiological variation. It may overstep these limits, of course, in two directions, the eye being either harder or softer than in its normal state; and, almost as soon as this fact was recognised, attempts were made to arrive at some standard to which the variations could be referred, and by which they could be measured. The most successful attempt in this direction was that of Mr. Bowman, who devised his well-known scale of nine *Ts*, by which to express all the conditions which were ordinarily encountered. According to this scale *Tn* represents normal tension; and the letter *T*, with a plus or a minus sign, and a numeral, represents increase or diminution. In order to meet doubtful cases, a note of interrogation is substituted for a numeral, so that +*T*? would represent a doubtful increase, and −*T*? would represent a doubtful diminution. +*T*1 would represent unquestionable increase, and +*T*2, +*T*3, would represent still higher degrees. On the other hand, −*T*1, −*T*2, and −*T*3, would represent three corresponding grades of diminution.

Endeavours have been made, especially in Holland, to determine tension more exactly than by variable and uncertain human sensations; and Drs. Snellen, Monnik, and Dor have bestowed much labour upon the construction of instruments called ophthalmotonometers, intended to measure ocular tension by mechanical movement. For the purposes of physiological experiment such instruments may be highly useful, but I do not think they would ever establish a diagnosis when educated surgical fingers were at fault. The fingers, however, can only be trusted when they are employed in the right way; and efforts to estimate tension by a single finger, or without perfect consentaneous action between the two, will only be productive of erroneous conclusions. A small hard eyeball, in an orbit from which much of the fat has been absorbed, will appear non-resistant to a single finger, because it may be readily pushed back into the orbit; and similar sources of error beset all careless methods of palpation. The tension of an eye should be estimated as carefully as the sensations conveyed by the finger in a case of obscure or doubtful fluctuation; and, if this be done, Mr. Bowman's scale will be found sufficient for recording the facts under all ordinary circumstances. The obvious objection to it, that it provides no means of accurately comparing the records of different observers, seems to be a difficulty which is inherent in the nature of the case, and which cannot be obviated except by some mechanical contrivance.

The sclerotic coat of the eye being an almost unyielding membrane, it is manifest that any considerable diminution of its fluid contents must deprive its contained structures of support to which they are accustomed, and that any considerable increase of its fluid contents must subject the contained structures to compression. It is therefore also manifest that the functional integrity of the organ requires any such variations to be restrained within definite limits; but it is not clear how this requirement is provided for, and the physiological question of the maintenance of the proper balance between secretion and absorption within the eye is one that cannot at present be said to be at all fully understood. The formation of the fluid contents—that is to say, of the vitreous and the aqueous humours—must be attributed partly to secretion (a process which is manifestly controlled by the nervous system) and partly to mere transudation or osmosis through the walls of the bloodvessels. The removal of fluid may be partly by its reabsorption into the bloodvessels, and partly by its transudation through the cornea or other of the ocular tunics. Besides the changes which may be occasioned by such methods, there is some reason to believe that the choroid itself admits of an afflux or of an efflux of blood, by which it is able to exert a compensating influence upon other and accidental sources of variation, admitting always as much blood as may be required to maintain the proper degree of fulness of the ocular cavities. In some birds there seems to be no doubt that an appendage to the choroid, termed the pecten, is likely to act in this manner, and that by variations in the quantity of its contained blood it permits internal changes, which are contributory to the remarkable range of vision which many birds are known to possess.

Regarding the question by the light of common clinical facts, we must recognise two conditions by which an increase of tension is commonly occasioned. The first of these is nervous irritation, either central or peripheral; the second is an arrest of transudation through the cornea. Wegner, in 1866, was the first to direct attention to the frequent occurrence of high ocular tension in connexion with severe neuralgia; and I believe that this combination of occurrences is much more frequent than is commonly supposed. My friend the late Dr. Anstie was kind enough to make some observations on this point at my request; observations which were cut short by his untimely death, and of the results of which I only know that he more than once told me that there was plentiful evidence in support of my impression. Everyone who has had opportunities of watching cases of trifacial neuralgia knows how frequently the sight of the eye of the affected side is rendered dim during the severity of the paroxysm; and I believe it will almost invariably be found that this dimness of sight is associated with, and is undoubtedly produced by, a temporary increase of tension. Moreover, herpes frontalis, which we now know to be a consequence of an inflammatory condition of the corresponding Gasserian ganglion, is frequently attended or followed by increased ocular tension; so that of the general influence of nerve irritation, in producing such a state, no question can be reasonably entertained. The effect of the arrest of transudation through the cornea is best seen in those cases of chronic iritis which ultimately produce entire closure of the pupil. As long as any pupillary aperture remains—that is, as long as fluid can pass from behind the iris into the anterior chamber,—no considerable increase of tension is commonly found to occur. As soon, however, as the pupil is entirely closed, so that fluid can no longer pass into the anterior chamber, it begins to accumulate behind the iris, and to produce an increase of tension which, if not promptly relieved, will inevitably lead to the disorganisation of the eye. It would seem, therefore, as if the passage into the anterior chamber were equivalent to a passage of exit from the eye; and, if this be so, the only means of exit must be by transudation through the cornea.

Transudation through membranes, as is well known, may occur either by the simple method of exchange known as endosmosis and exosmosis, in which, as a rule, the larger current sets from the fluid of less to the fluid of greater density; or by the process called dialysis, in which the transudation and exchange are governed by laws which are as yet only very imperfectly understood. This much, however, is certain, namely, that the occurrence of dialysis is greatly influenced by unknown conditions of the separating membrane, and that it may be altogether arrested although the membrane has not undergone any appreciable physical change. We can therefore only say, with regard to the ocular membranes generally, that they may possibly have some share in the production of heightened tension, and that, if so, such share is likely to be due to their having undergone what Dr. Richardson has described as "pectous change." The whole of this part of the subject is still in the region of pure hypothesis, but it certainly both requires and deserves investigation.

The general pathology of glaucoma was first clearly stated by von Graefe in 1855, and in 1862 Professor Donders furnished an explanation of the chain of morbid action, which has since been very extensively received, and which, although it has been disputed by some writers, appears to me to be in more strict accordance both with physiological knowledge and with clinical facts than any of the hypotheses which have been advanced in opposition to it. According to this view, the increase of tension is usually

produced by some irritation, either direct or reflex, of the nerves which govern the secreting function within the eye; and any inflammation which may occur in the course of glaucoma is essentially a secondary phenomenon, or complication, excited by the pressure, and maintained by the impediment to the circulation which that pressure occasions. The distinct enunciation of this, which may be called the neuropathic hypothesis, led to a large number of experiments upon animals, for the purpose of discovering the share taken by the trifacial and by the sympathetic nerves, respectively, in determining the calibre of the intraocular bloodvessels, and the secretion of the intraocular fluids. I cannot say that these experiments have led to any conclusions which appear to me to be either important or trustworthy; and when, as sometimes happens, I find that different experimenters are not entirely of one mind about the results of the same proceeding, I am not in a position to decide upon the relative accuracy of either. It is certain that, in the human subject, anything which can fairly be called glaucoma is always, or nearly always, a final result of combined morbid and senile changes which have been very gradually brought about; and I cannot imagine that these gradual changes can ever be imitated with sufficient closeness, in the previously healthy eye of an animal submitted to experiment, to afford a basis for conclusions of the smallest practical value. A better understanding of the pathology of glaucoma will be reached, if it is reached at all, by the direction of general professional attention to this and to kindred subjects; so that nutritive changes in the eyes may be discovered, and their course and progress observed, before they reach a stage at which they begin to affect the sight, and at which they send the patient to a specialist for the recognition of an advanced degree of an abnormal condition. I think we may now say, with perfect security against error, that we have abundant evidence of the effect of nervous irritation, either direct or reflected, in producing increased intraocular tension. The evidence of a direct influence is afforded, as I have already said, by the heightened tension which so often attends or follows trifacial neuralgia or trifacial herpes; and the evidence of an indirect influence is afforded by the heightened tension which often occurs, and which is then commonly called secondary glaucoma, in the course of other diseases of the eye. Among these diseases, adhesions of the iris, and certain forms of inflammation of the cornea, hold a prominent place; and they all have the common character that they are attended by a high degree of manifest nervous irritation. Dr. Landsberg, of Berlin, has lately described cases of glaucoma which have followed long-standing changes in the bloodvessels of the retina, and has thus enlarged the field of the possible initiatory causes of the disease.

Besides the various forms of the neuropathic hypothesis, it has been suggested, first, I think, by Professor Coccius, that there is in glaucoma a diminution of the scleral cavity, by a process of senile hardening or involution of that membrane. It is, at least, not unlikely that some degree of such a change may occur, and that, if not strictly causative, it may yet be contributory in its action. It may not impossibly be associated with that pectous change in the internal membranes which I have already mentioned as a possible element or factor in the general result.

In a discourse so brief as this, Mr. President, I must not suffer myself to linger over the tempting theme which is afforded by the conceivable or even the probable causes of heightened tension, but must proceed at once to consider the consequences which flow from such tension when it is established. And of these consequences one of the first and most important is this: that, by reason of the mechanical conditions of the intraocular circulation, the heightened tension provides for its own continuance and increase. The bloodvessels which perforate the sclerotic are conveyed through channels of considerable obliquity; and hence even a moderate heightening of intraocular tension places a serious mechanical obstacle in the way of the escape of venous blood from the cavity of the eyeball. There is also a certain degree of impediment to the entrance of arterial blood; but, as the forces which propel arterial blood are more powerful than those which determine the outflow of venous blood, the practical result is that blood gets into a tense eye with greater facility than it can get out again, so that, supposing the original increase of tension to have been due to an increased amount of fluid secretion, this is likely soon to be augmented by the presence also of an increased amount of blood. When, as happens in an ordinary neuralgic paroxysm, the cause of increased tension is not only temporary, but is also of short duration, the equilibrium of the circulation is gradually restored when the cause ceases to act; but, on the other hand, when the cause is more abiding, or is sufficiently active to produce a larger increment of fluid than can be readily disposed of by any natural means of outflow or compensation, the immediate effect is that the whole intraocular circulation is impeded, and that the organ is placed, with regard to all nutritive or reparative changes, much in the position of a finger around which a ligature has been tied. Hence it is clear that, in heightened tension generally, whether this be primary or a secondary consequence of other changes, we have to recognise the existence of a physical condition which is itself a powerful cause of morbid action, and which naturally suggests the employment of some mechanical remedy for its cure.

Supposing high tension to exist as a confirmed condition, not in a very high degree, but gradually developed and slowly increasing, it seems not difficult to predict the effects which it must necessarily produce. First, there would be the hardness of the eyeball, easily discoverable by careful palpation. Next, there would be the effect upon the circulation: the eye would be passively congested; and evidence of this congestion would be given by dilatation of its veins, both internal and external. The external veins most accessible to observation are those branches which pierce the sclerotic at a short distance from the corneal margin, and course backwards beneath the conjunctiva. Accordingly, in heightened tension, these veins soon become dilated, winding, and conspicuous. Examined by the ophthalmoscope, the veins of the retina present very similar conditions, and, besides passive congestion, they often present also an appearance of visible pulsation, limited to the surface of the optic disc. The explanation of this phenomenon is that the arterial blood, entering the full eye with difficulty, and therefore entering with full force only at the acme of the pulse-wave, thrusts back a certain amount of venous blood in order to make room for itself; and thus, as the arterial blood forces its way, the venous blood is pushed in the direction of the capillaries, and momentarily recedes from the surface of the disc, to return as soon as the arterial pressure is diminished in the intervals between the pulse-waves. Under a still higher degree of impediment, an arterial pulse is produced, and its mechanism is equally simple. The arterial current is not only diminished between the pulse-waves, but in these intervals is absolutely stopped and arrested. In the venous pulse, which results from the lower degree of abnormal pressure, the blood in the retinal veins recedes from the centre of the disc towards the periphery, and returns from the periphery towards the centre. In the arterial pulse, which indicates a higher degree of pressure, the blood recedes from the periphery of the disc towards the centre, and returns from the centre towards the periphery. In order to watch these changes, and to distinguish the arteries from the veins with certainty, it is necessary to use what is known as the direct method of ophthalmoscopic examination.

While such are the mechanical effects of increased tension upon the circulation, the nerves of the eyeball are also being subjected to direct compression. The optic disc presents a flat surface to the pressure; and from this flat surface fibres proceed, to turn in bold curves around the margin of the opening in the sclerotic by which the optic nerve enters the eye, and to spread themselves out in the retina. The ciliary nerves, which contain filaments from the third and fifth pairs and from the sympathetic, enter the eye near the optic nerve, and pass forwards, prior to their distribution, between the sclerotic and the choroid. In this position, they also are necessarily compressed; and the compression produces diminution of functional activity in the parts which they supply.

On these mechanical changes, it necessarily follows that grave functional changes must supervene. Glaucoma is a disease which chiefly, although by no means exclusively, attacks persons who have passed the middle period of life, and who are naturally beginning to experience that diminution of the power of accommodating the eyes for near

objects which is incidental to advancing years. But the compression of the ciliary nerves, in so far as it acts upon their filaments derived from the third, still further diminishes this power of accommodation, to which the third nerve is contributory; and it also tends to weaken the sphincter of the pupil, which is supplied with motor energy from the same source. The compression of the sensory filaments, derived from the fifth, at first produces a certain degree of numbness, or anæsthesia, which, if the pressure is increased, often passes into acute pain. The compression of the retina, and the derangement of its circulation, together produce impairment of vision; and this impairment, although it is generally universal, is yet usually most declared at the peripheral parts of the membrane, and thus explains the phenomenon which is described as contraction of the field of vision. The surface of the optic nerve is the least resisting part of the surface of the posterior ocular cavity, and, under a steady increment of fluid, something must give way. The nerve-surface yields, and is pushed back, so to speak, out of the eye, becoming converted into a cup or excavation. As it recedes, it drags the retinal fibres backwards, causes them to bend round the sclerotic opening at a sharper angle than formerly, and subjects them, especially at this angle, to increased compression. The result is that the retina as a whole, and first the portion immediately around the nerve-entrance, undergoes wasting and decay.

When the increase of pressure is extremely slow and gradual, and, it may be presumed, only in the case of persons of somewhat torpid nervous sensibility, the phenomena of glaucoma may from first to last be unattended by pain, and vision may slowly fade away under the influence of an atrophy occasioned by the compression of nerves and bloodvessels. The patient, in such cases, usually complains only of failing sight, and a careful investigation of his history will probably show that his troubles first took the form of premature or rapidly increasing presbyopia. He often sought relief from stronger and still stronger spectacles, and every such increase of power was serviceable for a time. On examination of the eyes, the pupils are large for the period of life, and contract sluggishly, and the surface of the cornea is less sensitive to contact than in the normal state. Sometimes the pulp of a finger may be gently laid upon it, without exciting any contraction of the orbicularis, and without the patient appearing to be conscious of the touch. The field of vision will be somewhat narrowed in, often more on the nasal than on the temporal side, but yet, on the whole, concentrically, and not irregularly or in sectors. The eyes will be a little hard, and, if one is worse than the other, the worse eye will usually also be the harder of the two. Very often ophthalmoscopic illumination will display some striæ of commencing cataract at the peripheral part of the lens, while the media are still transparent in the axis of vision. The optic disc will have a generally pale aspect, and its surface will be a little concave or saucer-like. It will often be bounded by a well-defined white ring, which is the edge of the sclerotic foramen, rendered unusually visible by the wasting of the nerve-fibres which bend around its margin, and which, in the natural state, more or less damp its whiteness, and conceal it from view. The arteries will be pale and small, the veins more conspicuous, somewhat dark, full, and winding. In the veins, and perhaps also in the arteries, a pulse will be visible, or may be produced by very light digital pressure upon the globe. If left without effectual treatment, such a case goes steadily, even if slowly, from bad to worse, and ultimately the sight becomes totally extinguished. The condition was long known as "atrophy with excavation of the optic nerve," and is now called simple, or simple chronic, glaucoma. It may serve as a convenient clinical basis for the study of other and more acute forms of the malady.

Putrid Meat.—The owners of the South-Eastern Wharf and Warehouses, Bankside, were lately summoned by the St. Saviour's Sanitary Authority for having stored on their premises several hundred tins of preserved meat in a putrid state and dangerous to the health of the inhabitants. The medical officer of health for the district, Dr. Bianchi, gave evidence to prove the bad condition of the meat. The magistrate promptly made an order for the immediate destruction of the whole, with costs.

CLINICAL COMMENTS
ON A
CASE OF ACUTE GENERAL LICHEN PLANUS, SIMULATING PAPULAR SYPHILITIC RASH, IN A BABE.

By TILBURY FOX, M.D. Lond., F.R.C.P.,
PHYSICIAN TO THE DEPARTMENT FOR SKIN DISEASES IN UNIVERSITY COLLEGE HOSPITAL.

I invite attention to a very interesting case of lichen planus, the eruption of which may readily be mistaken for a syphilitic rash. We have seen a good many instances of lichen planus together amongst the out-patients of University College Hospital during the last year, but none have exceeded in interest, from a diagnostic point of view, the case upon which the subjoined remarks are based. The following is its history:—

Kate F——, aged nine months, was brought to me at University College Hospital, on July 1st, 1873, with "a rash which had come out all over her." The mother was fairly healthy, but there was a suspicious history about her of syphilitic infection. She has lost her hair, her throat has been sore at times, though not in any marked degree. She suffers from "chronic rheumatism" about the hips and head, and she has had five miscarriages. The child in question was born at the full time, and is declared to have been quite healthy until it was six months old, and then she was vaccinated. The operation did not succeed, but three or four days afterwards the mother noticed some pimples on the left hand. They "looked like bites," she says, and just like the "point appears when vaccination is taking." A fortnight afterwards other spots appeared about the buttocks and ankles, and by degrees all over the arms. The body was next attacked by a "thick, fine rash." The eruption itched a great deal, and worried the child considerably. The mother states "that at first the spots were quite separate the one from the other, of a very bright-red colour, very pointed [she means raised], whilst they quickly began to flatten, and, as they became flattened, the skin of the point seemed to die off." At the same time "they became shiny-looking," and assumed "a purplish tint." After a while the spots began to arrange themselves in clusters about the ankles, the buttocks, and the arms. The disease, the mother adds, "has been just that rash the whole time." Such is the mother's description. It shows that the eruption is, and always has been, a papular one, patches being formed by the crowding together of papules.

Present state.—The child looks quite healthy. She is well nourished, has not lost flesh, and exhibits no sign of cachexia of any kind. On the face, over both cheeks, are twenty or thirty scattered, distinct, reddish-brown, firm-feeling papules, the size of large pins' heads. At the back of the neck, and about the forehead and the temples and across the nose, there is a small palish-red papular rash, uniformly scattered over the surface in these situations. The papules are slightly raised, and of the size of pins' points or rather larger. Over the arms, the legs, and the buttocks the rash is not unlike a papular syphilide, consisting of large, reddish-brown, firm papules, most of them discrete, but many aggregated together. Over the back and the abdomen the rash is "much finer," and made up of smaller, flatter, and paler papules, as thickly set together as though each follicle were attacked.

All the papules, whether large or small, were at first bright-red, but have faded after a while in colour, and have become flattened at their apices and "shiny-looking." The papules have this additional feature in common, that they flatten at their apices, are more or less angular at base, and exhibit in their centres a minute puncture, indicative of the opening of the hair-follicles, which are the anatomical seat of the papules; whilst, viewed by a side-glance, the papules exhibit a glistening appearance, and this gives a shining look to the skin as a whole, where the papules are thickly crowded together *en masse*.

Remarks.—The disease looked like syphilis, and the idea of its syphilitic nature was countenanced by the fact of the mother being syphilised; but then there was an entire absence of any sign of cachexia or other concomitant signs of syphilis in the child. Supposing the rash to be syphilitic

it was so plentiful that the child could not but be considered as very syphilitic, and yet it was certainly the reverse of syphilitic, judging from its general state and special local phenomena. The rash was definite and uniform in character, not multiform, as in syphilis. It was papular throughout its course, and the papules were characteristic of lichen planus; they were dull red in colour, angular at base, flat and shining at their apices, each with a central puncture, and patches were formed by the crowding together of the papules.

It is rare to see the disease in so young a child, and it is an important matter to recognise the disease, lest an anti-syphilitic treatment be adopted in such a case.

The disease begins as a vaso-motor disturbance of the deep part of the hair-follicles, which is followed by hyperplasia of the cell-elements of the root-sheath. It indicates defective nutrition from defective nerve-power, and the treatment consists in free inunction of oil, to diminish the hyperæmia and soothe the skin, and internal tonics, especially good food and iron, with diuretics should the skin be very hyperæmic over a large extent of surface.

The disease in this case was diagnosed as papular eczema by a foreign medical man of some distinction, who was present when the child came to me. Herein is another instance of what I have repeatedly said in print, that under the term eczema the most diverse things are classed. An American physician who was present when the child was under examination on one occasion, and whose opinion is entitled to considerable respect, informed me that the case would have been regarded as syphilitic at Vienna. I have given my reasons why it is not syphilitic, and pointed out how it exactly corresponds to the description in all particulars of lichen planus; and if my informant be right, the dermatologists of Vienna have yet to learn what lichen planus, especially in a child, is. As showing that Hebra and others have yet to recognise English forms of skin disease, I may mention further that this same gentleman saw several cases of *contagious impetigo* which happened to present themselves amongst my out-patients at University College Hospital, and having satisfied himself of its distinct and peculiar features as a separate disease, and by inoculation of himself, he informed me that the disease which I showed him was not that which Hebra and others at Vienna recognised as impetigo contagiosa, but that these gentlemen seem to regard severe impetigo of the face as my impetigo contagiosa; but I have in the clearest manner pointed out that the disease consists essentially of distinct isolated vesico-pustules, and not patches. I again urge the necessity of remembering that diseases vary in aspect in different countries, and that the German text-book cannot be taken as an exact guide to English skin diseases, nor will an English text-book afford true descriptions of typical instances of disease as seen abroad.

The child rapidly recovered under the influence of steel wine and the free use of linimentum aquæ calcis externally.

RESULTS OF

THIRTY-FOUR CASES OF GASTROTOMY,

PERFORMED WITH A VIEW OF EXTIRPATING TUMOURS HAVING THEIR SEAT IN THE EPIPLOON, MESENTERIES, BROAD LIGAMENTS, PERITONEUM, SPLEEN, OR PELVIS.

BY M. J. PÉAN,

SURGEON TO THE ST. LOUIS HOSPITAL, PARIS.

(*From Notes translated by* WILLIAM E. ROWLATT.)

THE following are the notes of all the operations of gastrotomy performed by M. Péan since the 20th February, 1868, to the 31st December, 1875, excepting those done with the object of removing tumours from the ovaries and the uterus. Some of them were performed owing to slight errors of diagnosis as to the seat of the tumour. Observation 35 is a case of complete extirpation of the spleen for a cyst which was developed upon that organ, and presents great interest owing to the rapid recovery of the patient, who is alive at the present moment, nine years after the operation, and the fact of this case being unique as far as we are aware.

CASE 1.—February 20th, 1868. Multilocular cyst of the broad ligament of the right side; general vascular adhesions; short pedicle. The surface of section of the pedicle cauterised; eight ligatures. Death from exhaustion.

CASE 2.—Multilocular cyst of broad ligament, resembling a fibro-cystic tumour of the uterus by the breadth of its pedicle; no adhesions. Removed in pieces, followed by cauterisation; several ligatures; tube left in the pelvis. Weight 18 kilogrammes. Death from pelvic peritonitis.

CASE 3.—November 5th, 1872. Abdominal tumour mistaken for an ovarian cyst. Punctured twice; exploratory incision followed by a flow of twenty litres of ascitic fluid. The bowels, with the epiploons and the peritoneum, were injected, and were bound together by firm adhesions. Recovery.

CASE 4.—June 19th, 1873. Areolar cyst of the broad ligament. Adhesions formed with mesentery, intestines, uterus, and abdominal walls; weight seventeen and a half kilogrammes; contained twenty litres of viscous liquid. Three different portions of the tumour which were excessively adherent were drawn together to form a pedicle, and were allowed to suppurate. Recovery.

CASE 5.—June 24th, 1873. Multiple cysts of the mesentery and great epiploon. Largest contained eighteen litres of blood-stained liquid; several were joined to the principal cyst by pedicles; general pelvic adhesions. Anterior surface adherent to great epiploon, which was partially separated from the cyst; the remainder was ligatured and excised; while the part which had been separated was replaced in abdomen; several ligatures. Recovery.

CASE 6.—August 19th, 1873. Unilocular cyst of the left broad ligament; adhesions with uterus. Contained twenty-seven litres of serous liquid. Tube left. Treated by suppuration. Recovery.

CASE 7.—August 28th, 1873. Multilocular and areolar cyst of left broad ligament. Contained five to six litres of sero-purulent liquid. The areolar portion of the tumour presented an aspect of encephaloid cancer. Adhesions with peritoneum, intestines, epiploon, and above by a strip with the inferior surface of the liver. Tumour extirpated by segments. Weight of whole mass, 1790 grammes. Death from peritonitis on seventh day.

CASE 8.—Sept. 25th, 1873. Multilocular cyst of right broad ligament; adhesions with uterus. Patient very weak; suffers from asthma. Weight of tumour, 2100 grammes; contained sixteen litres of liquid. Death from asthma on the fourth day.

CASE 9.—Oct. 16th, 1873. Multilocular cyst of left broad ligament; adhesions with epiploon, intestines, and uterus; latter organ greatly hypertrophied. No pedicle. Several ligatures. Suppuration. Weight 1275 grammes. Seventeen litres of liquid. Recovery.

CASE 10.—Dec. 11th, 1873. Areolar cyst of left ovary and broad ligament. Punctured once before operation; gave forty-eight litres. Uterus, greatly hypertrophied, was propelled through incision by tumour which occupied the whole pelvic cavity. The tumour was destroyed in two portions. The fundus of the uterus was amputated. Tube passed through vagina, passing out through the wound. Several hæmostatic plugs were left in the wound. Recovery.

CASE 11.—Jan. 6th, 1874. Fibro-cystic tumour occupying the pelvic cavity, and adherent to the mesentery. Contained several fragments of bone resembling the human skeleton; taken out in segments. Pedicle treated by suppuration. Recovery.

CASE 12.—Jan. 8th, 1874. Cyst of left broad ligament, adhering in front to abdominal wall, and behind to intestines; nine litres of liquid; pedicle ten centimetres in breadth. Left ovary was included in the wall of the tumour. Recovery.

CASE 13.—Jan. 15th, 1874. Cystic cancer of the pelvis. Twelve litres of purulent matter withdrawn. Numerous adhesions with intestines. Treated by suppuration. Death.

CASE 14.—Jan. 28th, 1874. Cancerous tumour of pelvis. Fifteen days before operation thirty litres of greenish gelatinous liquid withdrawn. Several cancerous tumours were found dispersed in the peritoneum. Wound closed. Death.

CASE 15.—Feb. 5th, 1874. Multilocular cyst of right broad ligament; areolar in its inferior portion; situated

beneath liver and in epigastrium; vascular adhesions with mesentery and uterus. Eighteen litres of liquid. A portion of the tumour was formed into a pedicle, and drawn down to the inferior extremity of incision; remainder was tied with a portion of mesentery. Recovery.

CASE 16.—Feb. 26th, 1874. Cyst having adhesions with ovary and broad ligament and pubis. Sixteen litres of blood-stained liquid withdrawn by puncture. A large areolar portion of the tumour was adherent to the broad ligament by a large pedicle. This portion was suppurating. Adhesions with intestines; while trying to destroy these, a small opening was made into the intestine. Pedicle was ligatured. Death from peritonitis.

CASE 17.—March 24th, 1874. Cancer of the iliac fossa; adhesions with mesentery and peritoneum. Suppuration. Death.

CASE 18.—April 12th, 1874. Hæmatic cyst of the left broad ligament; no adhesions; traces of anterior peritonitis. Thirteen litres of greenish, serous liquid. A portion of the tumour was enucleated; the remainder was treated by suppuration. Recovery.

CASE 19.—May 10th, 1874. Unilocular cyst of left broad ligament; general adhesions with epiploon and bladder. After destroying the adhesions with the bladder, there was some difficulty met with in replacing this organ in the abdomen. The portion of the tumour adhering to the broad ligament was left. Seventeen litres of liquid withdrawn. Death from peritonitis.

CASE 20.—August 11th, 1874. Cyst developed in the right broad ligament, pushing a portion of the mesentery in front with the intestines dependent on it. Bladder pushed downwards by tumour. General adhesions. Five ligatures. Seventeen litres of liquid. Pedicle treated by suppuration. Recovery.

CASE 21.—August 18th, 1874. Multilocular and areolar cyst of left broad ligament; general adhesions with abdominal wall, epiploon, and intestines. One large sac was punctured, and gave twenty litres of purulent liquid. Six ligatures made in the peritoneum and mesentery. Enucleation was very difficult. Pedicle was very large. Treated by suppuration. Death from shock.

CASE 22.—Nov. 5th, 1874. Cyst of left broad ligament. No adhesions. Peritoneum was separated from the tumour, and the whole mass was taken away. A portion of peritoneum was drawn towards the wound. Ten litres of liquid. Recovery.

CASE 23.—Dec. 1st, 1874. Multilocular cyst of left broad ligament. Recent adhesions formed on its anterior surface; older ones behind with epiploon and intestines. There were also some adhesions with the uterus. Eighteen litres of liquid. Treated by suppuration. Death from cerebral symptoms on third day.

CASE 24.—Dec. 13th, 1874. Multilocular cyst of left broad ligament, containing nineteen litres of serous liquid. Treated by suppuration. Death from peritonitis.

CASE 25.—Jan. 28th, 1875. Cyst of the left broad ligament, containing a purulo-gelatinous liquid. The broad ligament was incised in order to attain the deep portion of the tumour, which was areolar in its structure. Treated by suppuration. Recovery.

CASE 26.—Feb. 2nd, 1875. Areolar cyst of left broad ligament; adhesions with mesentery, intestines, and uterus. Incision of broad ligament; enucleation. Treated by suppuration. Death on second day from peritonitis.

CASE 27.—April 20th, 1875. Cancerous tumour of mesentery and pelvis, resembling an areolar cyst. Death.

CASE 28.—May 4th, 1875. Cyst of the right broad ligament; no adhesions; small pedicle. Treated by suppuration. An abscess opened into bladder. Recovery.

CASE 29.—Sept. 14th, 1875. Multilocular cyst of right broad ligament, containing nineteen litres of serous liquid; adhesions with abdominal wall and epiploon. Treated by suppuration. Recovery.

CASE 30.—Sept. 23th, 1875. Cyst of left broad ligament, containing twelve litres of purulent liquid; adhesions with uterus. Five ligatures. Recovery.

CASE 31.—October 25th, 1875. Areolar cyst of left broad ligament and mesentery; intestines were pushed forwards. Enucleation was extremely difficult; portion of peritoneum was drawn forward and applied to the wound. No pus. Drainage tube passed through vagina. Death from acute peritonitis.

CASE 32.—November 11th, 1875.—Cystic cancer of the pelvis, situated behind the uterus. Death.

CASE 33.—December 14th, 1875. Cystic cancer of left iliac fossa. Adhesions with ovary, uterus, and bladder. Death.

CASE 34 (splenotomy).—September 6th, 1867. Cystic tumour of the spleen, which was greatly hypertrophied. Surface of tumour was very vascular. Several portions of the spleen were ligatured and taken away with portions of the tumour; remainder taken away with pedicle, and surface of section cauterised with hot iron. Peritoneum was washed; weight 1140 grammes. Five litres of liquid charged with leucocytes and cholesterine. Recovery.

EPIDEMIC AMONG CATS IN DELHI, RESEMBLING CHOLERA.

BY SURGEON-MAJOR J. FAIRWEATHER, M.D.,
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DURING the year 1875 Delhi, in common with many other parts of the Punjab and North-West Provinces, suffered somewhat severely from cholera. The disease made its appearance in the city in the beginning of May, but it showed little tendency to spread till after the middle of July, when it gradually increased up to about the end of August, and then gradually declined again till towards the end of September, although it did not finally disappear till near the end of November.

On the 19th of August, when the epidemic had nearly reached its height, it was casually brought to my notice that a fatal disease of some kind was also prevalent among the cats in the city, and that they were literally dying in scores. On inquiry, I found that the disease was attended with severe vomiting and purging, and that it was sometimes fatal in the course of a few hours. Through the kindness of Captain Ewart, District Superintendent of Police, I ascertained that the disease had been prevalent for some time before I heard of it, and that it was not confined to any particular quarter, but that large numbers of dead cats were every morning picked up in all parts of the city. To complete the history of the epidemic, I may briefly add that the disease was not known to extend beyond the walls of the city; that it gradually declined, and finally disappeared about the 20th September; and that the number of cats carried off by it, estimated from the number carted out every day along with the street sweepings, was over five hundred—a very heavy mortality, considering the probable feline population of the city.

For several successive mornings from twenty to thirty of the dead cats were brought to me for examination, and I was surprised to find that the post-mortem appearances closely resembled those in the human subject after death from cholera. The cats had all a pinched appearance, with eyes sunk in their sockets; both thoracic and abdominal organs seemed to occupy less room than natural; the intestines, in nearly every case, were found to contain no solid fæces, but were filled with a thin fluid like rice-water, without a trace of the colouring matter of the bile, although on one or two occasions it was tinged of a slightly pink colour. The intestines were examined from one end to the other, but no trace of ulceration was found, and only in one or two was there any appearance of congestion. In nearly all which were examined were found intestinal worms. These seemed to be of two kinds—namely, a round variety, fully an inch long; and a kind of tapeworm. The former was generally to be met with in the stomach, and seldom in the intestines; and occasionally, though not always, it was found associated with the tapeworm. The liver varied in appearance, but was generally of a flabby consistence. The gall bladder was full; the urinary bladder, as a rule, though not invariably, empty; the spleen healthy; the kidneys generally much congested. The lungs seemed shrunk away towards the spine, and did not nearly fill up the cavity of the thorax; but this condition I afterwards found in two cats which had died from other diseases. The heart had

usually its right side distended by a loose black clot, while the left was almost empty.

It was with much difficulty that cats suffering from the disease could be obtained in order to watch their symptoms during life, as the disease was so rapidly fatal, but at last I succeeded in getting one, and shortly afterwards another. The first only lived a few hours, but was seen to vomit a whitish fluid, containing one or two round worms, such as were found in the dead cats. The post-mortem appearances were the same as those already described. The second cat lived some days, and both vomited and purged. The appearances found after death were the same as in the other.

Having thus satisfied myself that the disease, neither in its symptoms nor post-mortem appearances, could be distinguished from cholera, it became my object to discover whether it was communicable from one to another, and whether a similar disease could be produced by the cholera discharges from the human subject. For this purpose eight healthy cats were procured, two of which were tied up beside one suffering from the disease; three others were confined separately, and were fed with meat mixed with a small portion of the intestinal contents of the dead cats; while the remaining three were fed with meat tainted in like manner with the discharges of a cholera patient. This experiment was begun on August 23rd, and no result followed in the two first-mentioned cases; but, on Aug. 25th, one of the three cats which had eaten the discharges from a cholera patient was seized with choleraic vomiting and purging, and died the following day. Its stomach contained some round worms, such as have been already described. The small intestines were very empty, but what they contained was of a fluid milky appearance, without a trace of bile. In the large intestine milky fluid was found, together with a solitary small lump of dark-coloured fæces. The other appearances were the same as those described in the dead cats picked up in the city. On Aug. 28th another of the cats which had eaten cholera discharges was taken ill with vomiting and purging of a distinctly choleraic nature, but it ultimately recovered. The third cat showed no symptoms whatever of illness. I may mention that great difficulty is experienced in noting the symptoms in a cat in hot, dry weather, for unless constantly watched it may both vomit and purge without its being known, as the discharges dry up so rapidly.

Although this series of experiments had failed to show that the disease was communicable from cat to cat, it seemed to prove that a disease resembling it in every respect, and differing in no appreciable degree from cholera as it affects the human subject, could be induced by giving food mixed with the discharges from a cholera patient. But there was a possible source of error in that the cats experimented upon were got from the city, and might therefore have brought the germs of the disease with them. Moreover, the experiment was conducted at the dispensary, which is within the city walls, and, therefore, within what may be termed "the epidemic area."

To guard against any such source of error I obtained nine cats from a distance of twelve miles, where the disease was unknown, and these were never brought into the city, but were kept at the cholera hospital, which is at some distance from it. The whole of these cats were fed morning and evening with meat* mixed with a small quantity of cholera discharges (about two drachms among the lot); but although this was continued regularly for ten days, and though the discharges were given in different stages of decomposition, no sign of illness was observed further than that several of them were said to have purged or vomited. Indeed, so lively did the cats appear at the end of the time, that I concluded my previous experiment was a fallacy, and was about to order their release, when it was reported to me that a fresh case of cholera only a few hours ill had just been admitted into hospital, and as it then struck me that it was possible the discharges hitherto given to the cats might have been from patients in a later stage of the disease, when it was not unreasonable to suppose the cholera poison might have become less potent, I determined to make one more attempt with the discharges of the patient mentioned. A quantity of these was accordingly bottled off for use, and the cats were begun to be fed with them the same day (Sept. 8th). Two days afterwards (on Sept. 10th) seven of the cats were reported to have vomited and purged *frequently*, but the motions were said to be of a dark colour. On Sept. 11th all the nine cats were ill, but still the colour of their motions was said to be dark. The same evening one died, and the following morning another. From what had been said of the colour of the discharges, I did not expect to find the same post-mortem appearances as in the others examined, but what was my surprise to find that the intestines of both these cats were filled with most characteristic rice-water fluid. On Sept. 14th a third cat died, and on the 18th a fourth, and the post-mortem appearances were the same as in the others. The remaining five cats, after a struggle, ultimately recovered.

While the above experiment was being performed at the cholera hospital, another series of a crucial nature was being carried on at the dispensary within the city, to see whether similar effects could be produced by giving cats different kinds of fæcal and other matter mixed with their food. The matters employed were the stools of patients labouring under dysentery, chronic diarrhœa, and enteric fever, also healthy human fæces, and the pus from an unhealthy abscess. A certain number of cats were fed with each of these; and, as might have been expected, several of them showed symptoms of gastro-intestinal disturbance, and moreover two of them died; but the post-mortem appearances were very different from those described in the other cats. One of the two had been fed with dysenteric motions, and although it had been observed to be very ill the day previous to its death, there had been no vomiting or purging. It was rather a mangy-looking animal, had been the subject of previous experiments, and had suffered from a swollen leg. Its intestines were found to contain solid dark-coloured fæces, the large intestine being full of them. The other cat which died had been getting the enteric fever stools, and it was not observed to be ill previous to death. It was much emaciated, the stomach and intestines were nearly empty, and their coats much thinned, while in the large gut were found some hard dark pieces of fæces like scybala.

Whatever the cause of death in these two cats, therefore, it is evident that it in no way resembled cholera; and the whole result of these crucial experiments goes to prove that the choleraic symptoms observed in the other experiments were not caused by merely giving the animals some noxious material in their food at a time when a supposed epidemic influence may have been present, but that the cholera discharges contained something specific which was not in the other matters. Had the experiments ended here I would have been satisfied in my own mind that the disease among the cats was true cholera, and that it was communicable to them through the discharges from the human subject. But it happened that a partial revival of the cholera later in the season, when all trace of the cat disease had long disappeared, enabled me to continue my experiments; and, as I was eager to confirm the previous results in such a way as would satisfy the most sceptical, I commenced a more elaborate series of experiments than before to determine the stage at which the cholera discharges were most virulent, and whether their virulence was affected by boiling, or otherwise disinfecting them. But the result of these was highly disappointing; for, although the discharges were given in all kinds of ways, and were injected into the cellular tissue, in none were the choleraic symptoms which were observed in the previous experiments produced.

As in the case of the cats which were fed with dysenteric and other stools, so in the present instance, many of the cats vomited or purged, and five of them died in course of the experiments; but, with one exception, there was nothing in their symptoms or post-mortem appearances which could be called choleraic. The exceptional case alluded to was one of a number of cats subjected to the following experiment. Knowing the apparent effect of a purgative in sometimes stirring up cholera in seasons of epidemic, I gave to three cats a third of a drop of croton oil each with their food; to three more I gave the croton oil *plus* some cholera stuff; to a third set of three the same as last, only that the cholera stuff was boiled; to a fourth set cholera stuff alone, without croton oil; and to a fifth *boiled* cholera stuff without croton oil. This experiment was begun on October 19th. On the 20th nearly all which had got the croton oil were purged.

* There was great difficulty in getting the cats to take the cholera stuff in any other way than on raw meat. It was mixed with their drinking-water, but they seemed to drink very little, and, strange to say, they did not even care for milk.

On the 21st one of those which had got the *unboiled* cholera stuff *plus* the croton oil died. The intestines were nearly empty, the smaller containing some dark-coloured mucus, the larger containing mucus of a light colour, but differing from the rice-water fluid found in the diseased cats.

Of the other four cats which died during this series of experiments, all that need be said is that two of them were being fed with boiled, and two with unboiled, cholera stuff. In three of the number the intestines were found to contain dark solid fæces, while the fourth was found to have died of dysentery.

(To be concluded.)

CARLO MATTEUCCI:

HIS MERITS IN PHYSIOLOGICAL AND MEDICAL PHYSICS.

By MORITZ SCHIFF,

LATE OF THE FLORENTINE LABORATORY OF PHYSIOLOGY.

Translated by J. P. STERLE, B.A., M.D. EDIN.

THE philosophy of last century had already prepared the ground for physiological physics. Its results, so far as they bear upon biology, had, towards the close of the century, found eloquent expression in a famous discourse by Reil, professor of clinical medicine at Halle. This deliverance—which was, so to say, the programme of the great journal of physiology started by Reil, and continued down to our day—denied all vital force, declaring that the true task of biological science was to show how far the form and the intermingling of organic beings modify the expression of the laws of physics and chemistry in determining them to the production of organic life, material and intellectual.

This doctrine of Reil found many opponents, but even those among physiologists who did not dare to recognise it as a whole had to confess that, practically, Reil had indicated the only way in which biological science could be made to advance. Everything was hoped from the physics of the future; but the state of this science, at the beginning of our century, did not favour a single serious attempt to make it contribute to the teaching of those parts of physiology which were something more than a simple application of mechanics.

In Italy the doctrine of Reil was, in great part, adopted and proclaimed by Bufalini in the first period of his literary activity. For Bufalini, however, the negation of vital force was rather a weapon to combat certain false doctrines then in vogue than a lever to break new ground in the direction indicated by Reil. His first conception, though rich in many germs, has remained entirely theoretical, and did not help him to shut the door even of his own school against another form of vitalism, which, travestied and, under a false name, found something like support in the later writings of the great dialectician—certainly not that opposition which would have been worthy the author of the "Saggio sulla Vita" and the "Cicalate."

Really to introduce into science what Reil had openly indicated—and this was the necessary complement of Bufalini's aspirations—something more was needed than imposing declamation and dialectical induction. A genuine forth-putting of labour was called for, a hearty zeal on the experimenter's part which, without recoiling from the graver difficulties which seem to block every direct road, seeks to climb along the narrow and steep bye-ways which lead into the obscure labyrinth of the living organism, forcing every position which can facilitate the conquest of another and a better one. There was demanded the self-abnegation of the hero who cheerfully advances, although he feels that he will never reach the summit, and that he must purchase with his life the few steps which he has been able to open for his comrades.

Zeal, heroism, self-abnegation have never been wanting in the story of the natural sciences. But to lay the foundation of physiological physics something more was necessary. There was wanted a man inspired with the profound consciousness that such a science was desiderated—a master in the spacious field of modern physics, furnished with the richest knowledge of physiology, sufficiently acquainted with zoology and comparative anatomy to select and properly to prepare the subjects best adapted for every experiment, endowed with that experimental genius which can not only observe phenomena but invent new methods for the study of new arguments, and who can discern in unexpected answers those new questions, of which, more than any other field of research, that of living organisms is prolific, appearing, as it does, to lend itself so reluctantly to our means of physiological investigation.

These qualities were found united in Carlo Matteucci. To him, as to so many others indeed, the historical development of science had given the consciousness of the necessity of physiological physics. But to him nature had reserved the moral qualities; long and severe study had furnished him with the knowledge requisite for his vocation, while a continuous occupation with other branches of physical science had developed in him the experimental genius and perfected his familiarity with the use of instruments. In his earlier day, practical instruction did not accompany the student from his first steps in study—each had, single-handed, to impart it to himself by manifold and often sad experience. Matteucci had, in addition, that admirable perception, that instinct for the true which recognises truth while yet but a scintillating trace of it is revealed—while yet it is in great part hidden by concomitant and accessory phenomena. Such preception is often found in the pioneers of new paths in science; when the way is not yet levelled—ay, when the special means of levelling it are still to seek—they can already, by means of this well-nigh prophetic intuition, recognise that "this" (let us say) is the one path to the desiderated goal. For us others, with our more perfect methods and instruments and in the certainty of finding ourselves in the fertile field of facts opened up by our predecessors, remains the task of examining rigidly and all around, every step and every point. We have no longer to discover the ground; we have but to trace its topographical bearings. And if Matteucci in his numerous writings has sometimes failed to withhold the expression of that guiding perception of his, that instinct for the true, it is not for us to blame him, as has sometimes been done, because in all his researches he has not employed those severe methods which did not yet exist, and of which we owe the invention and often the perfection to him. The essential point is, as we shall several times see in this rapid exposition, that, even contrary to first appearances, his scientific intuition conducted him in many cases to a truth which he could distinguish from afar, but which it was not yet permitted to him to touch with his hands.

Among the various branches of physiological physics, animal electricity was distinguished by the closeness of its apparent connexion with the phenomena of life, and by the variety of the points of view it presents to the student. Electricity, in its influence on the tissues of the living animal, as also on those yet excitable of the dead animal, may be regarded as irritant. Towards this induction, Italy, from the times of Galvani and Volta, had already produced an interesting array of facts, which had been elaborated by the immediate predecessors of Matteucci, and especially by Marianini. These facts did not yet constitute animal physics, since they regarded electricity as an agent which comes from without, only modifying the conditions of the animal. Even Galvani's work, which fundamentally had another point of departure, could not be critically viewed from any other standpoint. But these collective labours had prepared the field and the method of animal electricity, and were, doubtless, for Matteucci, the starting point which led him to occupy himself, later on and more especially, with physiological electricity.

Electricity may further be regarded as produced in the living animal by the chemical or thermal differences which are found in it, as a secondary or accessory product of the physiological processes without having an immediate share in their production. Nobili had in this way considered the important facts which he had found in the frog, and which became for Matteucci, who rectified the views of Nobili, the starting-point of one of his most beautiful discoveries.

Finally, electricity may be inherent in the living tissues as an essential condition of their physiological properties. This view, already theoretically conceived in the last century, awaited from Matteucci the first facts which seemed to support it.

If physiological electricity, as the one most interesting and best prepared, was specially to occupy the genius of

Matteucci, he did not neglect other parts of animal physics and animal chemistry. In his lectures on the physical and chemical phenomena of living bodies (Pisa, 1844), which have been translated into French and English, we find, among others, some experiments on the phosphorescence of the Luecciola (*Lampyris italica*) which prove that in this species the so-called phosphorescence is connected with a combination of oxygen with carbon—therefore, with an exaggerated respiration or oxidation. This is the same conclusion to which, in 1875, Pflüger's researches brought us. Matteucci recognised that, in general, the nervous system has a certain influence on the continuance of the phosphorescence, and that local irritation may provoke it. Highly interesting is the fact, which Matteucci for the first time indicated, that after an intermission of phosphorescence it does not always recommence on the whole extent of the lucid segment. This, indeed, is observed in the *Lampyris italica*, but in the other species has not yet been verified. In this treatise of Matteucci's there is also found a series of observations on Endosmosis which, later on, gave rise to several interesting discussions.

At a more advanced stage of his career Matteucci occupied himself intently with the respiration of isolated muscles, and on the augmentation of the excretion of carbonic acid during their contraction.

Matteucci extended the investigation of electrolysis to organic bodies, and obtained results of interest to the physiologist. One of his first contributions to the *Annales de Chimie et de Physique* (1829) seeks to prove that if along a dead animal tissue there runs the current of a simple pile, the putrefaction is notably arrested, and its products modified. This singular observation, of which Matteucci could then give only a very incomplete explanation, has not from that time till now been repeated, and Matteucci himself never again recurred to it. All this seemed forgotten till, only the other day, we find in the *Gazette Médicale* of Paris, 1875, No. 33, the report of a discovery made by a M. Bloch, who finds that a piece of meat exposed for six days to the atmospheric air preserves its colour and odour if along it runs the current of a pile; while another piece of the same dimensions, under the same conditions, and without the current running along it, had begun to putrefy. Bloch promises to publish the results of other experiments of the kind. Even the *Centralblatt* of Berlin (Jan. 22nd, 1876) refers to Bloch's discovery as new.

The *Annales de Chimie et de Physique* (1853) contain some experiments by Matteucci on the influence of the current on the germination of certain plants. The negative pole of the pile accelerates the germination and increase. Later on I saw Matteucci repeat this very experiment in his lectures.

(To be concluded.)

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo ... rendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

FRACTURE OF BASE OF SKULL; FRACTURE OF CLAVICLE; FACIAL PARALYSIS; RECOVERY.

(Under the care of Mr. CHRISTOPHER HEATH.)

IN the "Mirror" of May 13th we published a case of fracture of the base of the skull associated with intercurrent and temporary facial paralysis, that had been under the care of Mr. C. Whipple, at the South Devon and East Cornwall Hospital, Plymouth. The following case seems to have been almost identical. For an explanation of the supervention of facial paralysis on fracture of the petrous portion of the temporal bone we must again refer to Professor Marshall's remarks published in the "Mirror," Oct. 26th, 1872.

J. P——, aged twenty-six, fell from his cab some time in the afternoon of Sept. 15th, 1875. He appears to have been asleep or drunk at the time, and remembers nothing after 3 P.M. He was admitted into the hospital at 1 A.M. on Sept. 16th, when it was found that he had a bruise on the head just over the left ear. Arterial blood was flowing from the left ear; no hæmorrhage down the throat, or from the nose, or into the eyelids. The patient was unconscious, but could be roused to some extent. In addition to this, there was a simple fracture of the left clavicle and a bruise over the left hip-bone. He was put to bed, and his head was shaved. He regained consciousness by 8 A.M. The bleeding from the ear continued freely till the evening, when it entirely stopped. No watery fluid escaped at any time. Calomel (five grains) was given in the afternoon, and the bowels were opened in the evening. The next day (17th) he complained of pain at the sites of his bruises; no headache; no pain on pulling pinna; he could not hear the tick of a watch placed in contact with the left ear; he was not deaf before the accident. An ice-bag was applied to the head in the afternoon. The calomel was repeated on the 18th, and again on the 20th. He complained at this latter date of "earache"—no headache or any other symptom of meningitis. Temperature 99·4°; pulse 92. A plug of cotton wool dipped in carbolic acid was placed in left auditory meatus. On the 21st the ice-bag to head was discontinued. On September 22nd the patient noticed that he "laughed on one side of his mouth," and this feeling was increased the next day, when his mouth was distinctly drawn to the right side. He was unable to close the eye, frown, or "show his teeth" on the left side; the nostril was flattened. No other paralysis. On the 29th of September the paralysis was slightly less marked; he could hear the tick of a watch held three inches away from the left ear. On October 5th it was noted that he could close the left eye completely, but could not whistle, &c. Patient left the hospital on October 15th. The paralysis was very slowly improving; the drawing of the face to the right side was still slightly marked; and the left forehead could not be wrinkled so much as the right. The patient's general health was exceedingly good. The fracture of the clavicle was treated by strapping (Sayer's method). A large quantity of callus was thrown out round the bones, and when he left the hospital union was not complete. He attended as an out-patient until the bones were firmly united.

CHARING-CROSS HOSPITAL.

CASE OF ACUTE RHEUMATOID ARTHRITIS.

(Under the care of Dr. POLLOCK.)

C. H. P——, aged twenty-nine, admitted December 2nd, when the following notes were made:—Was a clerk in a public institution, where the hours were long and the work was heavy. He had often written over twelve hours a day. Five years ago he had an attack of acute rheumatism (at least so it appeared), but without any heart affection. Said he never had syphilis or gonorrhœa.

On the 16th of September last he had an attack of "rheumatism," first affecting the middle joint of the right ring finger, the right knee and foot. He also stated that he had some affection of his eyes, which caused temporary blindness. He was laid up for two months, during which time the right knee was much swollen, and became partly flexed owing to contraction of the tendons; but it subsequently straightened again. The condition of the right hand was as follows:—At first the first interphalangeal joint of the ring finger became painful; then that of the middle finger, and finally that of the index finger. The pain was accompanied by much swelling. At the end of two months all the pain and swelling disappeared, except from the hand, but the knee joint remained somewhat stiff.

On admission, the right hand presented the deformity characteristic of rheumatoid arthritis. The metacarpo-phalangeal joints, with the exception of that of the little finger, were stiff, painful, and swollen; the fingers were markedly turned to the ulnar side of the hand. The pain was especially bad at night. The patient did not perspire at all. The tongue was coated, the bowels rather costive, urine natural, appetite pretty good. Heart and lung sounds normal. Temperature normal. Ordered fifteen drops of

colchicum wine, five grains of iodide of potassium, and equal parts of chinchona and rhubarb and potash mixture, three times a day, and an alkaline lotion to be applied on lint to the knuckles of the right hand.

In a few days he was somewhat better. Tongue cleaner; knee quite well. Ordered six drops of diluted sulphuric acid, three grains of sulphate of iron, and six grains of sulphate of quinine, three times a day. To continue the alkaline lotion, which seems to give great relief. The swollen joints to be painted occasionally with iodine liniment. The right hand to be kept absolutely at rest.

Dec. 19th.—Much better. Left the hospital by his own desire.

On Dec. 21st he was re-admitted. The metacarpo-phalangeal joints of the right hand were worse, more swollen and painful. He thought he had caught cold. Tongue a good deal coated, and bowels confined. Ordered a mixture containing ammonia, rhubarb, and potash, three times a day. To go on with alkaline lotion.

27th.—Somewhat better. To take the iron and quinine mixture again.

Jan. 11th, 1876.—The swelling has greatly diminished in the inflamed joints, and the pain has nearly gone. He can write pretty well now. Joints to be painted with iodine liniment.

14th.—Discharged at his own wish, very much better.

Upon leaving the hospital he returned to his employment as a clerk, but soon found that the amount of writing was more than the hand would bear, and after a while the joints threatened to become inflamed again. Acting under advice, he resigned his clerkship. For nearly two months he had no employment, and was able to give the right hand complete rest, continuing to paint it with iodine, and to take the iron and quinine mixture. During this period the hand got pretty nearly well, the fingers lost their inclination to the ulnar side of the hand almost entirely, and nothing but a slight thickening or nodosity of the meta carpo-phalangeal joint of the index finger remained. He subsequently obtained a clerkship at one of the Civil Service stores, where his duties did not involve excessive writing, which appointment he has now held for nearly two months, the hand remaining well.

Remarks.—With reference to this case Dr. Pollock observed that acute rheumatoid arthritis was not a common disease. Rest was of great importance in the treatment, the joints always becoming more inflamed after much movement. As soon as the digestive organs will allow, there is no treatment so successful as the administration of large doses of iron and quinine for a lengthened period, which should be given directly after meals, and never on an empty stomach. The alkaline lotion, and subsequently the iodine paint, would seem to have been of considerable service.

LEEDS INFIRMARY.

GENERAL CLONIC SPASM; TREATMENT BY CONIUM.

(Under the care of Dr. CLIFFORD ALLBUTT.)

M. E. W——, aged twenty-six, was admitted into the infirmary on May 1st. She had lost her mother, and was an only child. After making inquiry she stated that no near relation had ever been affected with epilepsy, chorea, or other nervous disease. She had occasionally suffered from frontal headache, which laid her up for two or three days, but had had no serious illness. Her occupation had been that of working a sewing machine.

About three months ago she began to start suddenly: in the day this occurred about once an hour, but at night she had fits of shaking lasting about an hour. The attacks in the day grew gradually longer, and at the period of admission lasted about an hour and a half. Those at night, generally three or four in number, lasted about an hour. Three weeks after the commencement of these attacks she was married.

The attacks began with a fluttering sensation in the epigastrium lasting a few seconds; then the whole body began to shake. The muscular tremor seemed greater in the back, but she could hold her hands pretty steady. When she laid on her side the abdominal muscles were lax, but when on her back the abdomen was tense, the thighs partly flexed, and the flexors working strongly. She complained of severe pain in the left hypochondrium, under the edge of the ribs, during the attacks, and there was some tenderness, on pressure, over the end of the last rib. On admission the attacks came on about every hour. Her general health was good. Catamenia regular up to two months ago.

May 2nd.—In the evening she took six drachms of the juice of conium.

3rd.—Had a similar dose this morning. She slept better, but has had four attacks this morning. The conium affected her distinctly, making her feel tired and inclined to sleep. Took one ounce of the juice at 2 P.M., and remained quite quiet till 11 P.M., when she had another attack and took another similar dose.

4th.—Took one ounce of the juice in the morning and six drachms at night. She had three attacks before 10 A.M., and was then quiet till 5 P.M., when she had an attack lasting only thirty minutes.

5th.—Took the conium as yesterday; had no attack in the night, but suffered at 6.10 and 12 A.M. and 6 P.M.

6th.—Had an attack at 6 A.M., and took six drachms of conium.

8th.—Has had no further attack. Some little pain in left hypochondrium, with tenderness over two dorsal spines, was relieved by a blister over the tender part of the spine.

11th.—Has had no attack since the 6th. Is somewhat weak and anæmic, but feels stronger than on admission; sleeps well, and is free from pain; can now work a sewing-machine without uneasiness. Discharged.

The patient was seen a fortnight later, and had had no return of the attacks.

LIVERPOOL WORKHOUSE HOSPITAL.

ANOMALOUS CASE OF NERVOUS DISEASE CONSISTING OF PROLONGED TRANCE WITH LOCALISED AUTOMATIC MOVEMENTS, TREATED BY ARSENIC; RECOVERY.

(Under the care of Drs. ALEXANDER and IRVINE.)

THE following case is interesting, as well from its strangeness and rarity as from the peculiar combination of perfect rest of one part of the body with regular and constant movements of another part, the mind being all the time in a state of trance.

The patient was a boy aged ten years—a fact that, with the absence of any motive, and the long continuance of the symptoms, precludes the idea that the disease was feigned. Whether the movements gave him any pleasure or not it is impossible to say, but certainly their restraint irritated and annoyed him, even at a time when it was thought he had not many hours to live. It is interesting to note that recovery dated from, and was coincident with, the administration of arsenic, and that bromides, iodides, chloral, and chloroform seemed to have had no beneficial effect.

Patrick T——, aged ten, had always been a healthy child until November, 1875, when he became "feverish," and was admitted into the simple fever wards of the hospital. His fever did not present any specific character, and at the end of twelve days he was discharged well.

A few days after leaving hospital his mother says "he began to work with his hands and occasionally to scream," in consequence of which he was placed under the care of Dr. Bernard, from whose account the following notes were taken:—When first seen the patient was lying on his back in bed, apparently perfectly unconscious, his eyes closed, the lids drawn tightly together, his whole body quite rigid. All at once he would jerk himself several times from the bed, kick his heels against any projecting object, and then relapse into his former state. It was at first thought that the symptoms might be due to worms, but as various anthelmintics had no effect, Dr. Bernard believed that they were due to irritation of the brain and spinal cord as a sequela of fever. Grey powder was given, and he improved so much that in six weeks he was able to sit up, the spasms having ceased, and consciousness having to a great extent returned. A few days after he was much worse. He was sitting up in bed perfectly still, with a blank and idiotic expression on his countenance. When touched he threw his arms straight out before him, and screamed very harshly. As his parents were tired of watching him, he was then transferred to hospital.

On admission January 28th, 1876, the boy lay on his back seeming altogether unconscious, his legs extended, their muscles, as well as those of the trunk and neck, being firm and rigid. His mouth was widely open, his eyes fixed, the lids slightly drooping; his face was sometimes flushed and sometimes pale. His arms lay naturally by his side, but the forearm, hand, and fingers were partially flexed, and in a state of constant and regular to and fro movement, so that the patient kept beating his chest with his knuckles at the rate of about sixty times a minute. His legs were so rigid that it was impossible to flex them forcibly, and when the movement of his hand was restrained, a peculiar fretful expression appeared on his face. He made no attempt at speaking or crying. Pricking, pinching, tickling, and faradisation produced no visible effect, except that when the latter was applied to the muscles of the neck the patient moved his head and made a slight noise. During sleep (of which he had very little), and under chloroform, the muscles of the legs and trunk relaxed, and the arms ceased to move. Pulse, tongue, and temperature normal; bowels constipated. Patient paid no attention to the wants of nature, but he readily swallowed the food that was put into his mouth. He was treated with bromide of potassium, iodide of potassium, and chloral at various times, with, occasionally, laxatives and laxative enemata.

From his admission up to the 1st of March the patient gradually sank, became more and more emaciated, and refused to swallow food, which was administered by enemata. Even then the rhythmical movements of the arms persisted, although much feebler than before, and when they were restrained his eyes alone expressed his annoyance, as he did not seem equal to the effort of frowning. A little before this, on Feb. 26th, three minims of the solution of arsenic were prescribed three times a day. On March 1st he began to swallow better. On March 2nd, for the first time since his admission, he turned on his left side during sleep, and next day he showed his returning consciousness by being fretful. His bowels now became very much constipated, and were relieved by the faradaic current when laxatives and enemata had failed. During the next three weeks the patient gradually became more conscious, and the rigidity of the lower limbs slowly disappeared. His convalescence to bodily strength was at this time much retarded by a short spasmodic cough not explained by stethoscopic examination. On March 11th, on account of his antipathy to swallowing his medicine, the arsenic was injected subcutaneously, and, as it produced no irritation, this mode of administration was continued up to the end of the case, the quantity being gradually increased to ten minims three times a day. As he grew stronger, the movements of his arms increased in extent and force for some time, and he now screamed when they were held. Cutaneous sensibility returned with the improvement in his health, and before the end of March he began to "notice" his attendants. About the middle of April, the motion of the arms began to intermit, especially when his attention was diverted, as during meals, &c. On April 28th, the arms were extended and bandaged to straight splints. He struggled slightly with these at first, but when they were removed, on May 8th, the movements did not recur. In a few days he was able to feed himself and attend to himself generally. On May 10th he began to walk, but as he had never yet spoken except for about three days at the beginning of March, when he called incessantly for water, the continuous current was applied to his neck and tongue. His recovery now advanced rapidly in every direction, and on June 7th he appeared in good health, ate and slept well, could play dominoes successfully with the other boys, and seemed as intelligent as any ordinary boy of his age.

HEALTH OF IRELAND FOR 1875.—From the report of the Registrar-General for Ireland for the past year, we learn that during that period 138 382 births were registered, equal to 26·1 per 1000, and 98,243 deaths, or 18·5 for every 1000 of the population. During the year 11,379 deaths were ascribed to the eight principal zymotic diseases—viz.: Scarlatina 3635, fever 2661, diarrhœa 1877, whooping-cough 1356, measles 792, small-pox 543, diphtheria 468, and simple cholera 47. The number of emigrants during the year was comparatively small.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

AT the meeting on Wednesday, July 5th, Dr. Priestley, President, in the chair, Professor LAZAREWITCH, of Kharkoff, Russia, exhibited a modification of the Blunt Hook. One end was adapted for replacing the funis; the other for extracting the child by the thigh, or for placing a plaited silk noose over the child's foot.—Dr. GODSON had on a former occasion called attention to the danger consequent upon using the blunt hook formerly recommended by the Professor. He was glad to see he had discarded it for one with a different curve.

Dr. ROUTH exhibited, for Dr. Oswald, specimens of Hypertrophy of Spleen and Liver, removed post mortem from a child nine years old. The swelling had begun in early childhood. She was strumous, and measured thirty-three inches round the abdomen. A brother was similarly affected.—Dr. WILTSHIRE inquired as to the nature of the enlargement, whether there was any history of syphilis, or of chronic suppuration, or of tubercle obsolete or with cavities. It looked as if it were a case of albuminoid infiltration. He would suggest the desirability of a microscopic examination.—Dr. WYNN WILLIAMS, who had had the case under his case, said the mother denied all knowledge of syphilis, but the father acknowledged to having had hard chancres. The condition was often seen in ague districts. Many children got it when the Metropolitan Railway was being made. The child was not rickety.—Dr. Routh, Dr. W. Williams, and Dr. Wiltshire were requested to examine and report further on the case.

Dr. BARNES recorded the further history of the case of Colloid Tumour reported last year. A mass nearly as large as before, weighing twenty-two pounds, had been removed by gastrotomy, and, spite of some wounding of the intestine owing to adhesions, the patient made a good recovery.

Dr. BRAXTON HICKS read a paper on Displacement of the Uterus by Distension of the Bladder, as shown by experiments on the dead body, detailing the results of numerous experiments he had made in conjunction with Dr. Goodhart, demonstrator of morbid anatomy at Guy's Hospital. The conclusions arrived at coincided in many respects with those obtained by Dr. J. Williams. Distension of the bladder produces retroversion without flexion, and a combined distension both of bladder and rectum raises the uterus bodily in the pelvis in an axis more or less perpendicular to the plane of the brim. The uterus may be regarded as poised in its centre, at the junction of the body and cervix. Moderate distension of the bladder suffices to tilt the fundus to a horizontal position; further distension, though generally completing the retroversion, may act in distending the anterior wall of the vagina, and so prevent version, but encourage flexion, more especially if the cervical attachments be firm.—Dr. SNOW BECK inquired as to where the intestines were during these experiments.—Mr. SPENCER WELLS doubted whether experiments made on the dead body in the recumbent position, after removal of the small intestines, could afford reliable information as to the effect of varying degrees of distension of the bladder and rectum upon the uterus of a living woman in the erect and other positions of the body. The influence of the small intestines (whether empty or distended with fæces or gas) upon the uterus was at least as great as that of either bladder or rectum, or both, and when they fell at all low down behind the uterus into Douglas's pouch (as they certainly do, not unfrequently), they not only affect the position of the uterus, but often lead to mistakes in practice.—Dr. CLEVELAND remarked that in estimating the full effect of a distended bladder upon the uterus it should be remembered there is a considerable difference in degree between the distension, and, it may be added, thickness of walls of a healthy bladder, injected after death, and that of an organ gradually enlarging to an enormous size under retention during life. In Dr. Hicks's interesting experiments, the maximum of distension produced by injecting two pints of water did not probably reach one-fourth of what sometimes occurs under

retention.—The PRESIDENT reminded the Society how William Hunter had taught that retroversion of the gravid uterus was produced by an over-distended bladder, and this doctrine had been almost exclusively accepted for a time. Dr. Tyler Smith had pointed out that, in some instances at least, the retroversion was not due to the pressure of the bladder, but that pregnancy supervened in a uterus which had been known to be retroverted before gestation commenced. Mr. Hunter's observations applied especially to the uterus when its fundus was enlarged by pregnancy, but the investigations of Dr. Hicks carried the subject further, and seemed to indicate that the unimpregnated uterus might be displaced by a distended bladder.—Dr. JOHN WILLIAMS stated that his experiments were performed both on the living and on the dead subject. When the bladder and rectum were both full the uterus was high up in the centre of the pelvis. If the bladder were empty, the uterus became immediately anteverted. When the bladder and rectum were both empty, the uterus was low and retroverted. As to the objections raised to the experiments, it was said that the intestines were generally found in Douglas's pouch during life. They were not found there once in twenty cases. When the uterus was attached to the posterior wall of the bladder for a longer distance than usual it became anteverted when the bladder was empty. Unless the bladder and rectum were very much distended, the uterus never reached the brim of the pelvis. Constipation was an undoubted cause of retroflexion, as on defecation the bladder was first emptied, and then the straining produced retroflexion.—Dr. ROUTH thought Dr. Williams's remarks very valuable. He had been in the habit for years of recommending patients with anteversion to hold their water as long as possible. He thought the intestines were very rarely found in Douglas's pouch. In cases of rectocele he could not recall a single case where they had descended into the pouch.—Dr. SNOW BECK thought the intestines were very seldom found posteriorly, behind the uterus; he did not mean in Douglas's pouch.—Dr. BANTOCK stated that his experience gained in the operation of ovariotomy was directly contrary to that of Dr. Williams as to the intestines being behind.—Mr. SPENCER WELLS believed the intestines were always behind the uterus.—Dr. J. WILLIAMS remarked that in most cases of ovarian tumour the uterus was either pressed down or else drawn up. In the latter case of course the intestines would go down behind.—Dr. WYNN WILLIAMS thought the cases of ovarian tumour and healthy abdomen were not comparable.—Mr. LAWSON TAIT said he had never found any evidence that the intestines were down behind the uterus in a case of ovarian tumour before its removal. He thought it must be exceptional, for he had observed it only twice, and then demonstrated it to others on account of its rarity. He did not think that any conclusions which Dr. Braxton Hicks might draw from experiments on a dead body lying on its back would materially aid us in judging of the influence of distension of the bladder in the living subject.—Dr. ROPER thought it difficult to understand how distension of the bladder could produce retroflexion of a healthy uterus. Retroflexion was mostly connected with a morbid condition of the structure of the uterus resulting from metritis, or the uterus became bent by the contractions and adhesions brought about by parametritis.—Dr. HEYWOOD SMITH thought the weight of the lower segment of the bladder tended to pull down the uterus.—Dr. GALABIN had been present at some of the experiments described in the paper, and he had noticed that the bladder did distend in a globular manner, and the lower segment first. It seemed evident that when the uterus was anteverted during life, the intestines were in contact with its posterior surface, and aided in maintaining its position.—Dr. TILT considered the experiments interesting as far as they went; but we should understand better the effects of vesical distension on the womb by injecting the bladder without opening the abdomen, and by then making a section of the body after freezing it.—Dr. HICKS stated that he had brought forward his communication as a small contribution on the subject. In the horizontal position of the body the uterus was still vertical. The intestines did unquestionably get behind the uterus. It was impossible to distend the bladder to the umbilicus without bursting it.

Mr. LAWSON TAIT brought forward a case of Vesico-Vaginal Fistula, in which this condition remained fourteen years after lithotomy, and was cured by a series of plastic operations. In 1862 the patient underwent vaginal lithotomy. After that she went through a series of operative proceedings at the hands of different surgeons. In July, 1874, she came under Mr. Tait's care. Considerable loss of tissue had taken place by sloughing, atrophy, and attempted operations, so that a small pouch at the upper part of the vagina, not much larger than a walnut, represented the bladder. The patient suffered from phosphatic diathesis of the most inveterate description. During the eighteen months she was under treatment she was under the influence of chloroform some twenty-three times. In order to provide an exit from the bladder other than the urethra until the wound from the operation had fairly united, a Boudault's trocar was passed through the left vaginal wall as far from the urethra as possible, into the bladder, and out on the other side, close to the cervix. Through it a nickle-wire drainage-tube was passed and fastened in. The operation was then conducted as before, and the result was most satisfactory. The stitches and drainage-tube were removed on the sixteenth day. The wound from the latter, being valvular, closed without trouble. The patient has now complete control over the bladder, and can retain as much as ten ounces of urine, rarely requiring to rise more than once during the night.—The PRESIDENT regarded this as an instance of the most unmitigated perseverance under the most difficult circumstances.—Mr. SPENCER WELLS had seen the patient operated on by Mr. Tait, and confirmed all that had been said in the paper as to the benefit which had followed the operation. In two similar cases such great benefit was derived from the application of the actual cautery to the orifice of the urethra, and for about an inch along the canal, leading to cicatricial contraction, after the separation of the eschar, that no further operation was necessary. So much good was done in both cases that he would be disposed to try the effect of cauterisation of the urethra in any case of incontinence of urine in women, when there was no vaginal fistula.—Dr. BANTOCK stated that Mr. Tait's experience confirmed that of Emmet's—that in cases of fistula involving the urethra it was absolutely necessary to make an outlet for the urine through the floor of the bladder.—Dr. ROUTH remarked that Mr. Baker Brown had adopted the plan of making an artificial urethra, and sewing up the normal one in similar cases.—Mr. LAWSON TAIT inquired if Mr. Wells would employ the actual cautery in cases of large dilatation of the urethra, such as proposed by Mr. Teale, of Leeds.—Mr. WELLS replied that he had not seen incontinence after dilatation.

Dr. GRIFFITHS communicated the particulars of a case of Hæmatocephalus which had been mistaken for hydrocephalus. Brain-substance and clotted grumous blood issued from the opening made in the head, after which delivery was effected by the blunt hook.

Reviews and Notices of Books.

Traité Pratique des Maladies du Larynx, précédé d'un Traité Complet du Laryngoscopie. Par le Dr. CH. FAUVEL. Avec 144 figures dans le texte, et 20 planches, dont 7 en chromo-lithographie. Pp. 931. Paris: Adrian Delahaye et Cie. 1876.

THE publication of this volume may be regarded as evidence of the growing interest taken in the study of affections of the larynx, and it is written by one who has obtained a well-deserved reputation as a skilful laryngoscopist. It abounds in practical details, and bears evidence of having been the outcome of personal experience extending over several years. The work opens with a chapter upon the history of laryngoscopy, from the crude conception of Levret in 1743, to the crowning invention of Czermak in 1858, from which date the use of the instrument in daily practice may be said to have commenced. In this retrospect we are glad to find that M. Fauvel, whilst claiming for one of his fellow-countrymen the honour of having been the first to conceive of laryngoscopy, yet brings

into prominence the efforts of Babington and Liston, whose practical hints were not followed up at the time. Then follows an account of the different forms of laryngeal mirror, and the accessory apparatus of laryngoscopy, every instrument being figured; and several pages are devoted to a discussion as to the best means of producing artificial illumination, that most in favour with the author being an oxy-hydrogen lamp made from one which he had seen at Dr. Morell Mackenzie's clinique. Having described the apparatus, the author passes on to give full instructions as to its employment—and here the novice in laryngoscopy will find many useful and practical hints,—completed by a discussion of the laws of reflection and the laryngoscopic image. M. Fauvel urges, and rightly, that everyone who pursues laryngoscopy should study it first upon himself; and he devotes a short chapter to "auto-laryngoscopy," and another to the demonstrating laryngoscope. The most exhaustive chapter in this portion of the work is, however, that which deals with the surgical armamentaria. The author has been at the pains to figure and describe nearly every variety of forceps, guillotine, and laryngeal lamp that have been devised. Fortunately for the reader, he generally states which form is to be preferred, and gives his reasons for the preference.

With this introduction the work opens, the rest of the volume dealing with tumours of the larynx. In his preface M. Fauvel states that it had been his intention to include the whole subject within the limits of one volume, but, owing to the large amount of material, he has been compelled to divide the work into two monographs. Dividing tumours into the two groups of "polypi" and "cancer," the author devotes by far the largest portion of the volume to the first of these groups, his description being based upon his personal experience of 300 cases. Limiting the term "polypus" to those new growths on the laryngeal mucous membrane which have no relation to syphilis, tubercle, or cancer, he subdivides his 300 cases into the following groups, which serve to show the comparative frequency of the different histological varieties of new growth: Of papillomata 206 cases, myxomata 53, epitheliomata 11, fibromata 14, angeiomata 2, sarcoma 7, and cysts 3. Having discussed the characters of these growths, macroscopical and microscopical, he refers to the different situations in which they may be found, and then goes on to consider their frequency as to age, sex, &c. He thinks that their actual frequency is considerably underrated, judging from the number of cases that have passed under his hands, and is inclined to believe that laryngeal polypi are more common in France than in other countries. As regards age, 5 out of 300 were under ten years of age, 7 were between the ages of ten and twenty, 60 between twenty and thirty, 118 between thirty and forty, 79 between forty and fifty, 24 between fifty and sixty, and 7 over sixty years of age. The male sex is far more prone to simple laryngeal growths than the female—an immunity in the latter which the author somewhat fancifully attributes to the uterus acting as a kind of outlet for the development of polypi. The causes of such growths are yet undetermined; many can be traced to long-standing hyperæmia, but in many cases no satisfactory etiology can be made out. The symptoms of laryngeal growths are discussed in detail, alteration in phonation being constantly present; and he shows how different changes in the pitch and tone of the voice depend upon differences in the situation of the growths. Dyspnœa and cough, and other symptoms, as pain, dysphagia, &c., are much less frequent, and even rare. As may be expected, the subject of diagnosis is fully treated of, for we have here the evidence afforded by laryngoscopic examination carefully weighed, and conclusions to be derived from such examination detailed. As to prognosis, the author admits that very many varieties of laryngeal polypus remain stationary, but that their spontaneous resolution is very rare. The chapter on treatment will be read with interest. At the outset he condemns thyrotomy and similar operations as being barbarous and unnecessary, and, discussing in turn the methods of removal by evulsion, excision, cauterisation, crushing, and by means of the écraseur, he gives the preference to evulsion. He thus sums up the results of his experience on this head:—

"Grounding our opinion upon our statistical results, we give the preference to the method of evulsion or crushing by means of the forceps. It is sufficient for *every* case, is little or not at all painful, does not expose the patient to any loss of blood, and in our hands has never given rise to any accident."

This is strong testimony, but it would be satisfactory to know the after-history of every case so treated. In the hands of so skilful a manipulator as M. Fauvel the results may always be happy, but in other hands the use of the forceps may lead to permanent injury.

The next 430 pages are occupied by full details of each of the 300 cases of laryngeal polypi which have passed through the author's hands from 1862 to 1875 inclusive. They form the material on which the monograph is based.

The rest of the work treats of cancer of the larynx, introduced by a graphic summary of its cause. The author follows the same course in this section as in the preceding, having himself had experience of thirty-seven cases of primary laryngeal cancer. To these he adds four others, in which the larynx became affected secondarily to the œsophagus. He acknowledges that treatment in this disease has hitherto failed to be anything else but palliative. With regard to extirpation of the larynx—an operation brought recently into notice by Langenbeck and Billroth, and now performed six times in all—Mr. Fauvel expresses himself cautiously, and prefers to suspend his judgment until further facts are obtained as to the relief afforded and the subsequent course of cases so treated. A chapter of pathological interest follows, in which the author compares general cancer with laryngeal cancer, and the literary part of the work concludes by full notes of forty-four cases of the latter affection.

At the end of the volume is an atlas containing some beautifully executed chromo-lithographs, by Lackerbauer, of many of the cases discussed at length in the text, together with histological drawings.

It will thus be seen that this is a monograph of the highest class. It is original, for it is based upon the author's own experience—an experience extending over sixteen years; and it is not only a monument of research and industry, but will add considerably to his already high reputation. He has chosen for his treatise perhaps the most interesting of all laryngeal affections—that of growths; and although it may be open to question whether interference in every case, such as is described, is necessary or called for, yet we are bound to say that the results obtained by the author in most cases justify the means. The work is a solid and enduring contribution to medical literature.

Lectures on the Physical Diagnosis of Diseases of the Heart. By A. E. SANSOM, M.D.Lond. Pp. 115. London: J. and A. Churchill. 1876.

THIS modest little work is replete with information, and will well repay careful perusal by the student of clinical medicine. Thoroughly practical in character, it gives in clear language, and in a methodical manner, every point which calls for inquiry in the investigation of cardiac disease; and, although the author disclaims any desire to be exhaustive on the subject of which he treats, there will be found in his book more information than is contained in

many a larger treatise. The first pages are occupied by an account of the symptomatology of heart affections, a timely warning being given not to trust too exclusively to objective phenomena, to the neglect of the subjective symptoms of the patient. Then follow in succession the discussion of each of the methods of physical examination employed in forming a diagnosis on a case of presumed heart disease; and we are bound to say that there does not seem to be any sign omitted from the author's catalogue that should be included. Each sign is discussed at length, and as full an explanation of it as can be desired is given. Dr. Sansom is to be congratulated upon the result of his labours—he has produced a book which we doubt not will be widely read and studied. The only drawback is that it should have been thought necessary to compress it within such narrow limits; the smallness of the type and crowding together of the subjects being unworthy of the text, which deserves far better treatment. A novelty in the book, which marks the intention of the author that it should be a constant companion with the student in his work in the wards, is the embossed outline figure of the chest on the cover. A "rubbing" of this outline yields a "chest chart" on which "the situations of murmurs, the outline of dulness, &c., can be indicated by coloured marks."

ROYAL COLLEGE OF PHYSICIANS.

DISCUSSION ON THE VIVISECTION BILL.

A MEETING of the College was held on Tuesday afternoon last, when the subject of the present state of the Vivisection Bill came up for discussion.

The PRESIDENT explained the steps that had already been taken by the College in the matter. He then stated that some Fellows thought that there should be a special deputation from the College to the Home Secretary, but he considered that it was rather late in the day to do this, as the objectionable parts of the projected Bill had been pointed out to the Government in the memorial of the College and elsewhere. However, he believed that there was very little probability of the Bill passing the House of Commons this year, and it was a question whether it was not politic to let the altered Bill as it stood at present pass if circumstances permitted.

Sir WILLIAM JENNER was of opinion that the College should oppose to its utmost the Bill now before Parliament. They should oppose it in any shape on principle since in any form it casts an unmerited stigma upon the profession. The College should not admit that the profession deserved any such Bill, and he denied in the strongest terms that the profession deserved it. He supposed they had most of them read letters in publications in which they were characterised and almost cursed as cruel, and that was the opinion of many of the advocates of the Bill. It was the declared intention of the Government, in passing the amended Bill, to affirm the principle of the original, and it was against this that he entirely protested.

Dr. PITMAN observed that the College had asked Parliament to modify the Bill in some of its particulars, and could scarcely oppose it now. The opportunity for that step was now lost.

Dr. QUAIN spoke in favour of opposing the Bill, and incidentally mentioned that Mr. Lowe thought that as things stood at the present time the profession should not submit to the gross insult offered to it by the Bill. Mr. Lowe thought that the proper course would be to pass a general law in reference to the infliction of pain or cruelty upon animals, and make exceptions under certain restrictions in the case of physiologists. He did not believe the Bill would pass this session.

Dr. STEWART had always felt that the profession should not submit to legislation, and now the longer they looked at the thing (the Bill), the less they liked it. The Bill was couched in very exceptionally offensive terms. It was a Bill singling out for the application of penal legislation a small body of men who have made their country and profession illustrious by scientific discovery. It would place them under police surveillance and on the same level as ticket-of-leave men, and they could not move a step in scientific research without the consent of the Secretary of State. He did not agree with Dr. Pitman at all in his remarks. He thought there should be a Bill dealing with the general subject of cruelty to animals, with certain exceptions as regards physiologists, and that the present Bill should be withdrawn. He moved a resolution to this effect, and believed the best course would be to go to the Government direct upon the subject.

Dr. WILSON FOX, in seconding Dr. Stewart's proposition, expressed the opinion that the former petition of the College, on a further examination of the document, clearly did not go to the root of the matter. Besides the question of the general principle of the latter, there were other points about it which were not touched by the petition, and to which he referred. Amongst other things he pointed out that no experiment was to be performed, according to the clauses of the Bill, even with anæsthetics, without a licence, or that which any surgeon can do on the living subject. The persons licensed were to be under such stringent regulations as the Home Secretary might deem advisable, and even as regards the publication of the results of their experiments. No Secretary of State ought to possess such autocratic powers over scientific researches. He doubted if any competent person could be found for the work of inspection, and the result would be that very unsuitable individuals would be selected for the office.

Dr. C. J. B. WILLIAMS argued that the public were in gross darkness about the question, and so long as this existed it was unwise to allow any legislation on the subject; for it would be based upon a most unjust estimate of facts, and nothing short of a direct opposition should be the line of action taken by the College now. There was a possibility before that the Bill might be amended satisfactorily, but this had not been done.

Dr. SIBSON felt that the College stands on different ground now from what it did before, and the altered Bill could not at this late period of the session receive proper attention, and should be dropped.

The PRESIDENT here explained that there existed here and there certain non-medical schools (natural science) in which physiology was being taught, and probably the Government had these in view in part in wishing to legislate on the subject.

Dr. PAVY thought it better to accept the present compromise offered, lest a worse thing might happen to them.

Dr. BEALE differed altogether from Dr. Pavy, and opposed legislation. There were all sorts of objections that might be stated. The members of the profession must be free to be guided by their own feelings, and there existed without doubt a feeling of humanity on the part of the profession that would soon stop cruelty, if it were practised, without the law.

Sir WILLIAM JENNER, referring to the statement made by some persons that if they waited for legislation next year they would get a worse Bill, remarked that the longer legislation is delayed the more likely were the public to get at the truth.

After some further discussion it was resolved that a memorial should be presented by the President on the part of the College praying for a withdrawal of the Bill this session.

A communication was read from the General Medical Council, directing the attention of the licensing bodies to the fact that from some of the reports of the visitations it appears that many candidates still enter upon their professional studies who are deficient in preliminary education.

A report from the Leprosy Committee was read and adopted.

It was referred to the Council to consider whether any warning should be addressed to the Fellows, prior to the annual election, against giving any countenance to a canvass for the Fellowship.

The other business of the day was unimportant.

THE LANCET.

LONDON: SATURDAY, JULY 22, 1876.

THE House of Commons has affirmed, on the motion of Lord FRANCIS HERVEY, "That further legislation is desirable with regard to the qualification and appointment of coroners and the mode of holding inquests." The Home Secretary accepted the resolution, at the same time admitting that this step involved a promise of early action. Mr. CROSS has further declared his opinion that the office of coroner cannot be abolished, and must be reformed. This is how the matter now stands, and it is necessary to face it fearlessly and fully. We have for many years continuously asserted and defended the proposition that coroners should possess medical as well as legal knowledge, and we have consistently contended that while an educated medical man can readily acquire sufficient knowledge of the law, a lawyer cannot so easily obtain adequate mastery of the science of medicine. There is no reason why it should not be acknowledged that tradition intensifies the conviction to which reason and experience have conducted us. We may, perhaps, be permitted to affirm that Mr. WAKLEY, the founder of this journal, was, according to our view of the office and its duties, the best coroner of recent date. It is not too much to say that to his resolute and able administration of the office the profession owes the claim it still holds on the appointment, and which it is a simple matter of duty to maintain. Having said thus much, and so cleared the way for free discussion, we may state the grounds upon which it must be as strongly as ever insisted that not only are medical men especially well qualified for the efficient discharge of a coroner's duties, but coroners who are not fitted by special training for dealing with medical questions cannot possibly perform the functions of inquiry as to the *cause of death* in such manner as public safety and the common good require.

It is surprising to notice the confusion of argument into which those fall who tax their ingenuity to find reasons why lawyers should discharge the functions of the coroner's office more efficiently than medical experts. They assert that the duty is expressly and essentially *judicial*, but they warmly deprecate the idea of such an inquiry being conducted by magistrates because "to be summoned to say what you know about a death before a magistrate, is a very different thing from being summoned to say what you know about a death before a coroner. The reference to the former seems to imply criminality, the reference to the latter implies nothing of the sort." This is the line taken by the *Spectator*. The contradiction is manifest; meanwhile there is much force in the latter premiss of the argument, and from the first and last, taken together, no unprejudiced person can have any difficulty in drawing two obvious deductions: (1) An inquiry into the cause of death is in no sense magisterial, and should be carefully preserved from any confounding with a function of that character; (2) the inquiry being non-judicial and of a nature wholly different, the proper person to conduct it is an expert acting in a purely non-magisterial capacity. These, we maintain, are the only logical deductions from the reasoning of the *Spectator*, and we are prepared to accept them; but we presume they are not the doctrines our contemporary desires to teach. Again, it is contended that the coroner might with advantage be allowed to act without a jury, because the finding of the court is never final. It may be remarked, in passing, that there are mortals so unreasonable as not to share the sentiment that "it would be no hardship to be tried because a shrewd lawyer thought that there was a *primâ facie* case against you." In a case where circumstances may point in one direction and facts in another, possibly the opposite, many—perhaps we may say most—persons would prefer not even to be arraigned on a criminal charge so heinous as murder or manslaughter, "on considerations which fly too far above the heads of the multitude." The use of a jury, moreover, as we have laboured to show by recent quotations from the Statute-book, may be very great in cases where a coroner is inclined to jump to a conclusion, right or wrong, without hearing all the evidence. It is for the jury to interpose in such a case; and if jurors understood and discharged their full duty, the part they play in the business of inquests would be of practical value and respected.

We decline to notice the imputation that medical journals and medical men are interested to "snatch" a prize for their profession. It would be as just to impugn the honesty of law journals and lawyers because they may not be unwilling to see the office of coroner added to the already long list of multiple appointments available as rewards for the devotion and intelligence of gentlemen learned in the law. It is unfortunate that questions of public concern cannot be discussed in the House of Commons and the public press without these unseemly aspersions on honour and probity. The position we take in this important question may be very simply defined. We hold the function of inquiry as to the cause of death to be essentially medical. It cannot affect the question at issue whether the official who performs the task is called a coroner, or his investigation conducted as the session of a court. In the public interest we think all proceedings of an inquisitorial character should be open, and, of course, they ought to be carried out with decency; but the essential business is to ascertain how a particular body came by its death. It is nothing to the point to contend that a coroner who is not a medical man may call for medical evidence, and form an independent judgment after balancing the weight of testimony between opposite witnesses. This *judicial* duty, this balancing of evidence, this mathematical process of discovering the line of truth by a method like the application of a parallelogram of mental forces, is not an integral part of the coroner's duty. The greatest harm has resulted from magnifying the office at the expense of the directness of its purpose. The original commission was a very simple one: to call together twelve of the nearest neighbours, responsible citizens, and with these as a body guard—so to say, *witnesses* of the coroner's integrity—to search out how the body viewed came by its death.

By a circuitous process, wrought out partly by public clamour, partly by patronage, and perhaps mainly by the ambition of coroners, this original function of the "crowner"

has grown to the inflated proportions of a judicial inquiry and a court. We urge that the office should be restored to its original purpose. When the wisdom of the Legislature appoints a public prosecutor, that functionary will be the proper person to take action upon the finding of the coroner and his jury as to the *cause of death*. We would go so far as to say that it is not strictly within the province of the coroner's court, properly constituted, to proceed a step beyond the discovery of the cause. How did this body come by its death—that is to say, what physical cause killed it? How did the cause come to operate upon the body? These are the only questions which the coroner is charged to ask. He ought under no circumstances to wander beyond the limit indicated by the issues specified. Within the scope of an inquiry so circumscribed the search must be wholly medical.

In respect to the first of the two questions we have set down, no lawyer or non-medical person can be admitted to possess the qualifications necessary to form a judgment. The proposal to commission a lawyer to sit in judgment on the cause of death, balancing the *pros* and *cons* of medical evidence, is grotesque to the extent of absurdity. Would any reasonable man propose to call in a lawyer to balance the weight of evidence in an inquiry as to the cause of disease?—and, if not of disease, why of death? When lawyers begin to think that a medical man would make a good judge of law, we may be induced to believe a lawyer qualified to hold the scales of truth at an inquest as to the "cause of death." It is because the coroner's court has been allowed to grow into something foreign to its real nature that we find it regarded as a judicial tribunal charged with magisterial obligation, and treated as an appanage of the law. Against this monstrous wrong in reason and practice we protest; and, curiously enough, the arguments most skilfully built up to strengthen the position against us, strengthen our own.

In view of the probable appointment of a public prosecutor, we think it is important to make the exclusively medical character of an inquest generally apparent. We repeat, the office is *not* judicial, and ought never to have been so regarded. The coroner is an officer appointed to watch and minimise the occurrences of death not obviously the result of disease. The function of officer of health is the complementary part of that of coroner. Perhaps the lawyers will hereafter contend that, inasmuch as the officer of health has to decide between the merits of different disinfecting agents, and the proportionate safety of drinking sewage-poisoned and pure water, or of living in a cellar little better than a drain and breathing a pure atmosphere, the function is judicial, and legal training is necessary to its discharge. It would scarcely more surprise us to hear this argument advanced than to find intelligent persons professing to believe that a lawyer is the fittest person to conduct an inquiry having for its object to determine whether a man has died of strychnine or tetanus; or, supposing he died from the effects of bichloride of mercury, whether the drug was selected as an easy agent for self-murder, or administered with a sinister purpose in a favourite preserve! Lawyers can know nothing, and are in no way qualified to conduct the progress of such an inquiry. It seems to be overlooked that when justice fails, or seems to go astray, in respect to matters of this class—the only matters within the legitimate scope of an inquest—it is invariably a *legal* coroner who fails.

It is, moreover, because those who speak and write impetuously on this subject persist in describing the office as "judicial," that we hear so much about the mode of election. To elect a *judge* by vote of the freeholders would be manifestly incongruous; but no one thinks the election of an officer of health unreasonable. We are not prepared to assert that the present mode of appointing coroners is expedient. The state of public feeling is apparently unfavourable to the retention of the right of choice by the freeholders, and that circumstance alone is sufficient ground for a change. Besides this, the existing mode of appointment has been discredited, and it will probably be as needful as wise to abandon it. We are not concerned to defend the election by freeholders; although the argument raised upon the basis of the misconception that the coroner's office is judicial is manifestly untenable. Our single purpose is to insist again, and as strongly as ever, that medical coroners are alone fully qualified for the task entrusted to them. We will not beg the question, or join issue on the lower ground that medical men are as well qualified as lawyers. We deny that lawyers are qualified at all. We say the office is not judicial, that it is essentially medical, that the decision to be reached is medical, and that medical men are alone fit to be charged with the duty of reaching it.

THE present year will be of more than ordinary mark in the sanitary history of this country with reference to foreign epidemics. It will be notable, indeed, from the fact that the three great foreign epidemics which this country has had to regard in its home relations in modern times—cholera, plague, and yellow fever—now, for the first time for many years, need to have attention given to them at one and the same time. Recent news from India gives reason to fear that we may be upon the eve of another great migration of cholera from its Asiatic home over the globe. Plague, which it was hoped had become one of the extinct diseases, has again shown itself in former haunts in the Levant, remote from the great thoroughfares of commerce, though not so much so but that at the present time it has led to considerable perturbations of local commerce, from which English commercial firms and English shipping are suffering. And now yellow fever, lately introduced into the port of Liverpool, compels attention to this foreign epidemic also, and our liabilities to mischief from it.

There is a certain parallelism between these events and the epidemiological history of the year 1865, which it may be interesting to recall. In that year also cholera, yellow fever, and rumours of "plague" occupied much the public attention. Cholera, in fact, about the middle of the year, migrated, by way of Arabia and the Red Sea route, into the basin of the Mediterranean; and yellow fever effected for a while a lodgment in Swansea. But the rumours of "plague"—the "black death," it was reported, of the middle ages—said to be moving westwards from Siberia, happily proved to be without foundation. The disease which had been popularly so named, and which had stricken with terror

many Russian and North German communities, was the hardly less fatal epidemic cerebro-spinal meningitis, a disease which, if diffusible at all by infection, is so within very restricted limits, as compared with true plague. To complete the parallel, steppe murrain in 1865 spread throughout the herds of Western Europe, and to this country; and even now we are receiving news of the active prevalence of this murrain in parts of Western Russia, and of the stringent measures taken by different governments to control it.

Close as the epidemiological parallelism between the present year and the year 1865 appears to be thus broadly stated, this parallelism does not extend to the facts in detail. In 1865 cholera had already begun one of its great migrations. The disease, indeed, was then in the second year of its migratory progress from India, although this was unknown until some time afterwards; and when the disease appeared on the shores of the Mediterranean, in Egypt, in 1865, Europe was taken by surprise. Now we are dealing with a rumoured probability of another great migration of the malady. Can the forecast be turned to any good account? In place of the reported "plague"—the epidemic cerebro-spinal meningitis—of 1865, we have now the question of true plague—the Oriental plague, the plague of the Levant, bubonic plague. Epidemic cerebro-spinal meningitis, as is proved, was a disease common to this country and to the countries on the Continent, where it prevailed in 1865, but happily was much less prevalent here than there. Bubonic plague has been unknown in England for two centuries, and in Europe generally for over thirty years, but the disease, until its entire cessation in Europe, was a source of infinite trouble and annoyance to the commerce of this country from the operation of quarantine; and even now this trouble has commenced, notwithstanding the remote localities in which the disease has reappeared in the Levant. The introduction of cases of yellow fever at stray times into our western and southern seaports had been regarded as of little importance, except in relation to quarantine, until 1866, when the extension of the disease in Swansea proved that there were possibilities of the disease obtaining a foothold among our seaport communities, which must not be overlooked in subsequent importations of the malady.

The three pestilential diseases of foreign origin which we have thus at the present time, as it so happens, to consider, do not all hold the same relations in sanitary law and practice. It is true that each of the diseases, once introduced among our populations, would come under the provisions of the Public Health Act with respect to infectious diseases, and it is the duty of the local sanitary authorities to take necessary measures under that Act for preventing their spread, and for extinguishing them. But yellow fever and plague also come under the operation of the Quarantine Act, which is not the case with cholera. So little is the liability of spread of yellow fever in this country, and the number of ports where it is likely to be introduced are so few, that the operation of the Quarantine Act with respect to it has long lost its medical significance. The Act, indeed, is simply carried out as a commercial necessity in order to relieve our shipping of disabilities which would else attach to it among nations practising quarantine as an essential element of public health administration. We are disposed to infer that the liability to extension of plague in this country, should the disease again spread widely over the Levant, and even infect Eastern Europe, will be but little greater than that of yellow fever, but the disturbance to commerce by the operation of the Quarantine Act probably will be much more considerable. The commerce which would be affected by quarantine as to plague is, we believe, larger than that affected by quarantine as to yellow fever. Moreover, by the discontinuance of all our quarantine establishments since the believed extinction of plague in the Levant, except at the Motherbank, it is difficult to understand how a quarantine other than farcical is to be maintained here against plague, even with the exceedingly limited object of satisfying the requirements of other maritime States. Neither is it clear how the duties of port sanitary authorities and the requirements of the Quarantine Act are to be reconciled. It would be well, indeed, that the difficult questions arising out of the operation of the fossiliferous Quarantine Act in relation to plague should receive the attention of the Government and of port sanitary authorities before we are plunged into a maze of absurd inconsistencies and difficulties by the operation of the Act in its present form.

Cholera is not a quarantinable disease here. We have disabused ourselves of this pseudo-precautionary measure in reference to this malady, and have hopes, since the International Sanitary Conference of 1874, that the greater number of the maritime States of Europe will in this respect now follow our example. It should be incumbent upon us to bring plague at least, if not yellow fever, under precautionary regulations in our seaports similar to those we apply to cholera. The sooner this question is taken in hand by the Government the better, for there are indications that, under the traditional dread of plague, we may see quarantine revived in the ports of the Levant with all its pristine extravagances. Now this is to be prevented, if possible, not only from the intrinsic folly of the course in respect to plague, but from its reaction upon measures of quarantine in respect to cholera. It would be a great misfortune, when better notions are beginning to prevail on the Continent as to quarantine in reference to the last-named disease, to have them checked, as must almost necessarily be the case, by a revival of the old quarantine practices in respect to plague. We have asked if the forecast as to a new migration of cholera could be turned to any good account. If the lesson of the futility of quarantine to be derived from the epidemic of 1865 (previous like lessons having proved unavailing) is not learned, hope of good from the forecast cannot be entertained. Mr. NETTEN RADCLIFFE'S recent official report on cholera, from 1865 to 1874, carries us a step further in this argument. In his detailed account of the spread of cholera from India that year, he shows *that even a theoretically complete system of quarantine on the different lines of progress of the disease would have been unavailable to check it.* Until this lesson is fully understood by continental nations, we cannot hope for the thorough establishment of those internal measures of precaution which can alone effectually hold cholera in check.

THE Local Government Board is singularly unfortunate in its exercise of the controlling power in local sanitary

organisation with which it was invested by the Public Health Acts of 1872 and 1875. That it has adopted no policy, and really done nothing to reduce the chaotic disorganisation of sanitary government, which it has full power to do under the Act of 1875, is but too well known. To sins of omission, however, are added blunders of administration, which are perhaps still more mischievous, as showing the tendency of the Board, and what may be expected if a policy ever be evolved by it. One of the weakest spots of our sanitary organisation, whether regarded from the standpoint of the progress of public health, or of justice to that branch of the medical profession which, at the sacrifice of private practice, has accepted appointments as medical officers of health, is the uncertainty and insecurity of the tenure of these appointments. The power of dismissal, with or without reasonable cause, now claimed and exercised by local sanitary authorities, without any control by the central authority, even in cases where half the salaries are paid by the State, is sufficiently paralysing to honest independent sanitary work. The recent dismissal of Dr. DEVILLE, the medical officer of health of Harrogate, is an apt illustration of the system of bondage in which this branch of the profession finds itself placed. We need only also mention the cases of Mr. M. W. HILLES, of Keighley, and of Mr. E. ROBINSON, of Dukinfield, as instances of medical officers being dismissed for too zealous performance of grossly underpaid services. Then, even in cases where no direct hostility exists between medical officers of health and sanitary authorities, the short term of office for which appointments are made (seldom exceeding three years) most manifestly reduces the influence, if not the independence, of medical officers of health. The Local Government Board, however, it is to be sincerely regretted, is now, by its recent action, refusing to sanction reappointments for a longer period than one year. We recently noticed that, after a close fight in the Sheffield Town Council, the reappointment of Dr. GRIFFITHS as medical officer of health was made for three years, in spite of strong opposition from an influential section of the Council. The Local Government Board has since informed the Town Council, in a letter signed by one of the new Assistant-Secretaries, that it only sanctions the reappointment being made for one instead of for three years, as it deems it expedient that the appointment of medical officers of health should be open for reconsideration at the expiration of five years from the date of the passing of the Public Health Act of 1872. This decision naturally gives great satisfaction to the section of the Sheffield Town Council who proposed to re-elect Dr. GRIFFITHS for one year only, and the spokesman of the party has since stated that he "is informed" that a new Bill on the subject is under consideration which will make all appointments under the Public Health Act annual. We can scarcely imagine that even the Local Government Board would approve of a change that would be so utterly fatal to sanitary progress, but such a construction may be accepted as evidence of the mischievous tendency of the recent action of the Board in refusing to sanction reappointments of health officers for more than one year. Some explanation of the real motive for this course of action is due to the public and, above all, to medical officers of health.

Annotations.

"Ne quid nimis."

THE TEACHERS OF PHYSIOLOGY AND THE CRUELTY TO ANIMALS BILL.

THE teachers of physiology in England, Scotland, and Ireland have unitedly drawn up and signed a very important memorandum of facts and considerations relating to the above Bill, which ought to go some way towards dissipating the clouds of ignorance and prejudice by which the subject is surrounded. After tracing the origin of the existing agitation to the appearance of certain letters in the public journals, describing alleged cruelties in a physiological laboratory at Florence, to misconceptions connected with the publication of the "Handbook for the Physiological Laboratory," and Dr. Klein's evidence, the physiologists aver that after more than two years' agitation, supported by organised societies and ample funds, no abuse of the practice of experiment has been proved; and they repeat the statement most of them made before the Royal Commission, "that within their personal knowledge, the abuses in connexion with scientific investigation, against which it is proposed to legislate, do not exist and never have existed in this country." After indicating the nature and purpose of scientific experiments on animals, the reasons why the exemption of cats and dogs for all such experiments (even when rendered absolutely insensible to pain) would be detrimental to the progress of discovery, in those very diseases, too, of which these animals are themselves often the subjects, and after pointing out that experiments for research should not be exclusively restricted to registered laboratories, the memorandum concludes by dwelling upon that one point on which it says scientific men and those who assume to be the vindicators of humanity are in complete agreement—viz., the necessity of putting trust in trustworthy persons. The signatures of sixteen professors of physiological science are attached to the document, and include the names of Professor Sharpey, Dr. Wm. B. Carpenter, Professors Humphry, Rutherford, Burdon-Sanderson, Pavy, Foster, and the other teachers of physiology in the United Kingdom.

MR. GLADSTONE ON MEDICAL SCIENCE.

THE addresses with which distinguished laymen favour the audiences assembled in medical schools on Prize days are always well-intentioned, often interesting, and occasionally suggestive, but it is seldom that a speaker at one of these gatherings succeeds in placing before the profession a really important line of thought which it is worth while to take up in detail and work out to its legitimate issues and practical conclusions. Mr. Gladstone in large measure achieved that intellectual feat in his recent speech at the London Hospital College. We pass over the right honourable gentleman's more general remarks—for example, that in which he asserted for the medical profession a growing social influence, greater and more expansive than that which accrues to the law. Comparative progressiveness is a theme not easily discussed to any useful purpose. The sort of progressiveness proved by advances in social influence is especially difficult to appraise. Each of the professions compared will have something to urge in its own behalf, and the one which can point to the longest list of public favours and State recognitions of usefulness will claim the pre-eminence. In a friendly contention on this issue with friends of the Bench and the Bar, we doubt whether a beggarly account of C.B.s and baronetcies,—without a single honour or badge of social influence on a level with

the peerage so frequently bestowed on lawyers in express recognition of their services to society—would be held to make out the claim the ex-Premier so kindly affirms on behalf of medicine and its professors. On the subject of progress in its scientific aspect, particularly in relation to the development of speculative thought, there can be no doubt that Mr. Gladstone's remarks were to the point, and in the highest degree encouraging and useful. It is strictly true that there exists "an opportunity for the medical profession to exercise increased knowledge and a greater share in the leadership of thought." It is moreover evident that the use of this opportunity must be collateral and incidental rather than direct. The attempt to assume leadership would be an act of usurpation, and so regarded. The future to which Mr. Gladstone points is inseparable from the fact that medicine holds the casket which contains the germ of life and the source and secret fount of all potential energy. We are not thinking of the materialistic doctrine of force, but as a matter of every-day observation it is a growing experience of our science that the relations of human mind to human matter and organism are closer and more vital than even the physicists believed them to be. This is the talisman of progress which Medicine undoubtedly holds in her hand, and with which she should command success. The progressive explorations of physiological and pathological science develop intimate bonds of union between mind and body hitherto undiscovered, and not even supposed to exist. One of the earliest practical results of this progress has been to scatter the edifice of "mental medicine" to the winds. Mind and body are inseparable, at least during life; they are mutually dependent for energy; the strength of the one is the power of the other; the weakness of one is the impotence of both. It is no more possible to group thought and modes of thinking into a system and call it "psychology," than to classify pain, and call into existence a specialty for the treatment of suffering apart from the organ that suffers. Pain may be studied by itself, and it is well that it should be. The same remark applies to all specialties; as provinces of observation and research they are invaluable, but as departments of the applied science of healing they must not only fail, but issue disastrously. Specialism in research is a necessity; specialism in practice is a mistake. The acquisitions of knowledge collected in every field must be thrown into the common treasury, from which practitioners may draw their supplies of information and the rules of their procedure for the relief of human suffering, the prevention and cure of disease, and the retardation of decay. The lessons of experience gained in practice should revert to the same common store, instead of being claimed as the prize of a particular enterprise. In this way all the good work done by specialists would help the general advance of medicine, as a science, an art, and a profession, to new conquests, greater practical service in the world, and proportionate success. Mr. Gladstone's suggestive observations on progress and specialism should be read and pondered by all; but the student must read between the lines, and track the subject farther and deeper in the direction they point.

THE HEAT.

THE remarkably high temperature of late has been the subject, of course, of no little conversation and comment. The ordinary Britisher is not accustomed to anything of the kind: his fears lie in an exactly opposite direction; he is not afraid of being baked, but is commonly on his guard against cold, draughts, and treacherous changes. If the cold of winter and spring upsets the balance of his physical functions and endangers his life, it is the heat of the hot weather we have just been having that specially tends to disturb his moral equanimity and irritate his temper. It is a curious evidence of our utter unpreparedness for any sudden accession of heat, that Anglo-Indians are wont to declare that they feel the high temperature in this country almost as much as they did the heat of India. Our streets, theatres, houses, rooms, and railway-carriages, are no doubt fearfully hot and stuffy, and if the heat of our hottest days were maintained for any time, life would soon become insufferable; but, happily for us, it is otherwise—a breeze no sooner springs up than life becomes enjoyable enough.

At Aldershot Camp a higher reading of the thermometer was reached lately than had been the case for the last nineteen years, and at other places also the temperature was recorded as unusually high. Several cases of sunstroke have occurred. Two soldiers of the force encamped on Blackheath, near Guildford, were stated to have died of it on the 14th, and other fatal cases were reported about the same time from Bristol and elsewhere. The first important thing to be observed in great heat is temperance—temperance in all things. Heat gives rise to feelings of exhaustion; this leads to the drinking repeated doses of alcohol in some shape or other, than which nothing can be worse. We do not say that a strictly temperate man never gets sunstroke; but we do aver that a man who keeps his house and his person, if we may so express it, well ventilated, by opening the windows of the former, and clothing himself rationally, who attends to the functions of his skin by "tubbing" regularly, and who lives temperately, is a very unlikely subject indeed for sunstroke. A manifest want at this season is some non-alcoholic beverage that is cold and pleasant without being at all sweet or mawkish.

Perhaps there are few people deserving of more pity than infants and little children in this very hot weather. They are hot and thirsty, to begin with, although this does not seem to be generally credited by parents and nurses, who are themselves always consuming ice or iced drinks; they require to be suitably clad for the season; and they need all the fresh air possible in their nurseries and bedrooms—points too often neglected.

THE THERAPEUTIC USE OF ALCOHOL IN THE BATH WORKHOUSE.

THERE is one very clear-headed member of the Board of Guardians of Bath—Mr. Wilkinson. We should not be entitled to make a note of this fact if it were not that he promises, by his clear-headedness, to save his colleagues from placing the medical officer of the workhouse in a thoroughly false position, and, in fact, converting him, as Mr. Wilkinson says, into a spirit merchant. It is gravely proposed to give to the newly-appointed officer £30 a year, in addition to his salary, with which to supply the patients with wine and brandy. The proposition is so monstrous that we must give the words of the report, which is to be considered at a meeting on the 26th inst. "They"—be it observed that "they" means the Finance Committee; what is really a medical question is made a financial one—"they further recommend that he (the medical officer of the workhouse) be required to provide the sick paupers with wine and brandy, whenever he considers it necessary to do so, and that he be paid the sum of £30 per annum for the same, it being understood that the medical officer will not recommend the guardians to provide beer and porter for the paupers in lieu of wine and brandy." In other words, Mr. Hanham is to purchase wine and brandy for the use of the paupers. He is, as Mr. Wilkinson insists, to buy and sell an article with which he will have, *nolens volens*, a financial and even a commercial association instead of an association purely professional and therapeutical. We agree with

another guardian, Mr. E. L. Bagshawe, that we should rather throw up the appointment than accept it on such terms. We do not wonder that there was only one candidate for the appointment. The practice of Poor-law medical officers finding expensive drugs is thoroughly disparaged. Even in this very report it is recommended that cod-liver oil and quinine should be excepted from the articles supplied by the medical officer, so as to exclude the bare possibility of a medical officer withholding such things or giving them too scantily out of his meagre salary. It is singularly inconsistent not to apply the same principle to alcohol. What will be Mr. Hanham's feelings if he gets £30 with which to supply spirits and wine, and only gives the patients twenty pounds' worth? What will be the feelings of honourable guardians if the medical officer finds it necessary to supply forty pounds' worth of these things, for which he has been paid only thirty? The late officer ordered them to the amount of £70. In any way in which Mr. Hanham's position will differ from a spirit merchant's, if this report is adopted, it will differ for the worse, for he will be exposed to the temptation to save himself commercially by acting on crude views of the part of alcohol in therapeutics. We protest strongly, and we hope the profession in Bath will do so too, against the hands of the medical man being tied in the treatment of disease. Though Mr. Hanham has made a mistake, we think, in agreeing to accept office on such terms, let us hope that the guardians will not press them upon him. We notice with pleasure that the guardians seem quite willing to give equivalent quantities of other good things. From this we gather that it is not a mere desire to save a few pounds a year which actuates them. Let them trust Mr. Hanham without tying him. In other words, let them treat their medical officer as a professional man, and not degrade him at the outset of his appointment.

THE DUTIES AND RESPONSIBILITIES OF SHIP-SURGEONS.

IT would be a matter of affectation if we professed to ignore the circumstances connected with an action for libel tried last week in the Court of Common Pleas at Guildhall, the details of which were so copiously rendered by some of our daily contemporaries as to give the matter an unpleasantly prominent position among the news of the day. The libel in question was contained in a report addressed to the Superintendent of the Union Steamship Company at Cape Town by Captain Coathupe, of the *African*, and imputing to Mr. H. Payne, then surgeon of the *Anglian*, improper conduct with reference to a young lady in whose cabin on board the *African* he was found at eleven o'clock at night, when the two vessels were moored close to each other off Port Elizabeth. It appeared from the evidence adduced that the young lady had been attended by Mr. Payne on the outward passage, that the medical officer of the *African* was ill on the night in question, and that Mr. Payne, spending the evening with friends on the *African*, heard the young lady (who was suffering from hæmoptysis) coughing violently, and went into the cabin at her request to attend her professionally. The young lady and her father (who was on board the *African* at the time) were both witnesses for the plaintiff, and, after a great deal of evidence had been taken as to the cabin door being found locked, the alleged intoxicated condition of the captain at the time, &c., about which there was considerable conflict of testimony, the jury eventually found for Mr. Payne on all counts, and assessed the damages at £100.

We are, of course, glad to congratulate Mr. Payne on the result of this trial, but do not recur to the subject for that purpose. The particulars recorded briefly above may fitly furnish a text for teaching the very great necessity that exists for caution and circumspection in the conduct of medical practice on board ship. Some of the most prominent scandals of the day have originated afloat, the result of enforced idleness during a voyage; and it is no exaggeration to say that, now-a-days, the reputation of the captain of a passenger ship is made quite as much by a careful supervision of the doings around him as by skilful and correct navigation. The owners and managers of our great ocean steamers know this so emphatically to be the case, that on some ships (we think we may say on most well-regulated ships) the navigating officers have a mess of their own, and do not dine in the saloon, in order that pleasant society may not have any chance of interfering with responsible duties and regular terms of rest. The doctor, however, is of course, with the captain, and in some lines also the purser, a table-companion of the passengers. Unlimited confidence is placed in the doctor, and a great deal of the comfort of the passengers will depend upon the judicious way in which his "lay" rather than his strictly professional duties are performed. But herein, we think, rest the responsibilities of the position—responsibilities really greater than those of any other walk of professional life. The medical officer has, so to speak, the run of all inhabited parts of the ship at all hours, and so it is doubly necessary that, in his case, special discretion be exercised to avoid even the appearance of evil. Lights in all ships are (unless otherwise ordered on account of sickness) put out at ten or half-past, at night; and after that hour, if the doctor be summoned to attend a lady in her cabin, prudence would suggest that he should require the presence of the stewardess. And, on the other hand, it is equally undesirable, whether for the reputation of surgeon or client, that a prolonged *tête-à-tête* professional interview should take place in the cabin of the former. These and other matters of detail may not suggest themselves at first to the medical neophyte afloat, but must be attended to if officers as well as passengers are to be neither the propagators nor the victims of scandal, and if the ship and all connected with her are to maintain a proper prestige. We consider these remarks worthy the attention of all medical men serving afloat in the mercantile marine, for it has lately been a special care with us to urge that better pay and position should be accorded to ship-surgeons, inasmuch as their duties are often by no means light, and their responsibilities always excessive.

INGENIOUS EVASION.

THE Local Government Report on the case of Charlotte Hammond, who was alleged to have died of starvation, the relieving officer having neglected to supply "necessaries" recommended by the medical officer, is wholly useless as an exposition of duty. It is like an old woman's scolding all round, with special rebuke for the official she dislikes the most, on the score of extraneous matters dragged into the inquiry, apparently with no better purpose than to serve as the excuse for additional castigation. The medical officer was to be "put down," and as little or nothing could be found to justify a sound rating, the circumstance that he has not kept the district medical register properly posted up is interpolated, with the request that the guardians will "require" better behaviour in future! The Board does not think Charlotte Hammond ought to have had medical relief, and the relieving officer receives a gentle remonstrance for giving it. But the medical officer, the troublesome person to be repressed, did not fill in his certificate with sufficient care; he was not clear as to the fitness of the case for removal to a workhouse. The stress of the censure is therefore

made to fall on his shoulders, and, this done, the farce of an inquiry is concluded, and this unbusinesslike and useless Board at Whitehall resumes its slumbers. Even the Local Government Board must have been aware that the sole question in which the public, the Poor-law medical officers, the guardians, and their officials everywhere were waiting to have settled is who is to be the judge of what necessaries are requisite for a case—the relieving or the medical officer? This, the sole point of interest, is ingeniously evaded. The Local Government Board is obviously lacking in one or more of three qualities—intelligence, courage, or candour. We must be excused for suspecting it lacks all three. This will probably continue to be the case while a political man is at the head of the Board. It is impossible—in the sense of being impolitic—to offend boards of guardians generally, by informing them that *the recommendations of medical officers must either be carried out or patients removed from their care.* This is the legal and moral fact, but the courage to state the truth boldly does not exist at Whitehall. The Board prefers to offer no remark or opinion on the one real point at issue. Nevertheless, medical officers will do wisely and act honourably in making this simple proposition the basis of their policy.

DEATHS BY BOILER-BURSTING.

THE recent frightful "accident" to a tubular boiler on board the *Thunderer* will, of course, form the subject of a full inquiry, and the evidence of experts will doubtless be brought to bear on the question how far the occurrence was preventable. There is, however, a phase of the subject which it is not premature to mention, and which, indeed, ought not to be left a day longer unnoticed. Deaths from boiler-bursting are, unhappily, so numerous and so varied in their essential character that the attention of surgeons dealing with these cases ought to be prominently directed to their study and elucidation. There are the deaths from shock, in which the injury is inflicted directly on the nervous system, and life is supposed to be extinguished instantaneously. It is important to ascertain in these cases whether the effect is produced by mechanical force, causing obscure physical lesions, or by concussion; and, if the latter, whether there is any recovery of consciousness after the immediate shock? The questions involved are of painful and deep scientific interest, and the facts should be carefully investigated. Then come the cases in which death is a secondary consequence of scald or burn. The smallness of the surface injury which may produce a fatal result, particularly if inflicted over a large ganglion, or congeries of ganglia, of the sympathetic system, the variable length of the interval which occurs between the cause and effect, and the pathological process that intervenes, are matters imperfectly understood and important to determine. Also the question if steam is actually inhaled into the lung, or the larynx, occasionally, it may be, to the salvation of the sufferer, by closing and so protecting the respiratory organs. In a word, many and widely diversified points of practical moment can be studied in the presence of a calamity of this extensive and terrible nature; and, in the interests of science and the public good, the opportunity ought on no account to be neglected.

CENTRAL SANITARY WORK.

THE last Report of the Medical Officer of the Local Government Board, just published, shows that during the past year twenty-seven local inquiries were made by the inspectors of the Department as to "facts of disease in particular places, or to conditions which were deemed likely to cause disease." The results of these inquiries are of course very instructive, for they include particulars as to epidemics of typhoid and other zymotic diseases, and show also, in an eminent degree, that the returns of the Registrar-General form a very good test by which to judge of the average health of a district, or to hazard a doubt as to its sanitary condition. Inquiries have been held at Alcester (Warwickshire), Barton (Lancashire), Chatteris (Cambs), Cheshunt, Croydon, Faversham, Festiniog, Great Yarmouth, Guisborough, Handsworth, Holywell (Flintshire), Keighley and Oakworth, Lenton (Notts), Oldbury, Oldham, and Royton (Lancashire), Pontefract, Potterspury, Ramsey (Hunts), Swansea, Wednesbury, Wells (Norfolk), West Bromwich, and Wiveliscombe (Somerset). The large majority of the inquiries were held on account of outbreaks of enteric fever, caused invariably by want of drainage, defective drainage, defective water-supply, or sewer gas. A special inquiry was also made, by Dr. Buchanan, as to an outbreak of scarlatina in a household at South Kensington; by Dr. Ballard, on account of enteric fever at the West Riding House of Correction, Wakefield; by Mr. Radcliffe, at the Norfolk and Norwich Hospital, in consequence of the fatal prevalence of pyæmia and erysipelas; and, by Dr. Buchanan, at the Northampton Lunatic Asylum, as to an outbreak of enteric fever. Mr. Simon also reports that places were visited by medical inspectors on six occasions with reference to questions of hospital accommodation for cases of infectious disease.

It is to be remarked that there are now in England and Wales 1557 areas of separate jurisdiction for general sanitary purposes, 39 of which are metropolitan, 928 urban, and 590 rural. Hence the medical officer remarks that the above inspections, though they represent, as applied to the new Local Sanitary Administration, the inquiring function which was formerly exercised by the Privy Council under the Act of 1858 in matters concerning the public health, do not constitute an amount of observation sufficient for a general report.

In addition to the proceedings above recorded, two general inquiries were commenced last year in the medical department: one concerning scarlatina, which is in the hands of Dr. Buchanan, and another, by Dr. Ballard, concerning certain branches of industry which tend to produce nuisance by their effluvia.

SCURVY.

WE recur to this monotonous subject with something of disgust, but it is absolutely necessary to notice the production of a Blue-book of 182 pages, comprising a return "of copy of reports, correspondence, and papers relating to recent cases of scurvy which have occurred on board British merchant ships." This report was ordered to be printed on the 20th of March, and, if it had been forthcoming before the Merchant Shipping Bill was in committee, would have influenced to a considerable extent the discussion that then took place upon scales of diet and health of crews. The report in question includes particulars, (dating as far back as September 1871), in respect of forty-six ships about which inquiries have been held, and official reports made to the Board of Trade. The epitome of these reports shows that in four cases prosecutions were ordered, and the captains or owners fined. The causes of the outbreaks of scurvy are variously detailed, thus: "No anti-scorbutics on board; bad quality of rations; proper amount of lime-juice not served; insufficient lime-juice on board; eating bad meat; rations insufficient for voyage, &c." It would appear that in the vast majority of cases these causes of scurvy were purely preventable; that of the forty-six vessels under consideration, no less than five belonged to one owner, and that in two of the latter cases the quality of the meat served to the crew was found to be bad, though plenty of lime-juice was

given in all the ships. This fact goes to prove that, as we have reiterated over and over again, the effects of bad salt meat, given without vegetables, cannot be neutralised by any quantity of lime-juice. The report contains also a list of forty-six cases reported to the Board of Trade in which no official inquiry was considered necessary. In five instances it is reported that the vessels have not yet arrived, but that, on arrival, official inquiries will be instituted. It appears impossible that the next session can pass without some distinct legislative action being taken with regard to the diet and general sanitary condition of seamen.

DR. BROWN-SEQUARD'S LECTURES.

DR. BROWN-SÉQUARD would not like his most remarkable lectures at the College of Physicians to be received without criticism, which they are pretty sure to receive; but it must be gratifying to him to see that they are listened to with attention and respect by an audience in the highest degree complimentary to him and creditable to the profession, representing not only English medicine but English surgery. Among others of a numerous audience, presided over by the President of the College, Dr. Risdon Bennett, were Sir Thomas Watson, Sir James Paget, Sir Joseph Fayrer, Dr. Williams, Dr. Radcliffe, Dr. Wilks, Dr. Dickinson, Dr. Russell Reynolds, Mr. Bowman, Mr. Gay, &c. &c. What we noticed with gratification was the presence of physicians who specially represent in England what is known of the physiology and pathology of the nervous system. It is not often that these specialists can have listened to such a rapid and copious enumeration of facts and cases at variance with accepted views, or to a physician who made a heavier demand upon them to reconsider and unlearn much that they have been fain to regard as settled. But none would be more glad than they to receive proofs that we have yet much more to learn about the physiology and therapeutics of nervous diseases.

HOW FEVER IS BROUGHT INTO LONDON.

THERE is strong reason to think that another instance may be added to the long list of outbreaks of enteric fever caused by contaminated milk. At a recent meeting of the St. Pancras sanitary authority, Dr. Stevenson reported that three cases of typhoid had occurred in well-appointed houses situated in the Regent's-park sub-district, and that he had been led to make a searching investigation into the possible origin of the disease. He could detect no defect in the construction of the houses likely to explain the appearance of the malady, but found that all received their milk from one retailer. Dr. Stevenson communicated with the medical officer of health of the country district in which the farm supplying the suspected milk was situated, and was assured by him that a more likely place for typhoid to proceed from could not be imagined. The cows on the farm had access to a pond containing crude sewage, a culvert opening directly into it and bringing sewage from some twenty houses in the village. The garden was skirted by a sewage pit which ended in a brick culvert, which as it passed through the farm yard was discharged into the pond before mentioned. In the garden there was another pond of muddy water. There was also a shallow fifteen-feet surface well, containing only a few inches of filthy water, and "from either of these sources came the water-supply." Although the people at the farm alleged that they filtered the water, the health officer actually saw some of the filthy water in a large milk can and also in two pails. "The dairy so called was simply an offset from the scullery of the house and not by any means too clean and badly ventilated." The St. Pancras authority agreed that further consideration of the matter should be postponed, while Dr. Stevenson promised to further watch the particular milk-walk. It is very evident from what has been described that rural health authorities require greater powers than they at present possess.

THE COLLEGE OF SURGEONS AND THE GENERAL MEDICAL COUNCIL.

IT is very gratifying to see the way in which the various medical bodies are sending as their representatives to the General Medical Council the very best men they can find. The College of Surgeons in England has done wisely in sending its ex-president, Sir James Paget. Great changes are likely to be made sooner or later in the examining system of the country, and no body is more interested in these changes than the College of Surgeons. But for far larger reasons than this we rejoice to know that Sir James Paget is a member of the Council. Our readers are aware that the Council is at last committed to a consideration of the state of medical education. No one is more entitled to speak authoritatively on this question than Sir James Paget, whether we regard his connexion with an institution which has of late creditably distinguished itself by increasing the efficiency of its examinations for the membership, so that the number rejected at its primary examinations is half as many as the number passed, or whether we regard the personal judgment and experience which he will bring to a question touching vitally the interests of the public and the future reputation of the profession.

THE TEMPERANCE FÊTE.

THE friends of temperance have condescended to have a big dinner at the Crystal Palace, at the cost of a guinea. As Mr. Bowly said, "I confess that in coming to a guinea dinner I feel that I am stooping down to lift somebody up." Nevertheless, Mr. Bowly was right to make this sacrifice, and show that teetotallers could dine and be happy, could have their *entrées* and *relevés*, and their pleasant drinks, like other men—*minus* the alcohol. To refute effectually the logic of "Comus," that—

> "If all the world
> Should, in a pet of temperance, feed on pulse,
> Drink the clear stream, and nothing wear but frieze,
> The All-giver would be unthanked, would be unpraised"—

it would certainly be necessary to have a more simple *menu* than that of the 11th inst. But it is something to show that men may dine elaborately and even luxuriously without the "poison," as our teetotal friends will call it. Next to the big dinner, the great feature of the day was Dr. Richardson in the chair, and his speech at the banquet, showing that science and industry, health and happiness, economy and—the Bishop of Peterborough notwithstanding—even liberty, were all on the side of temperance. It would be too bad to submit an after-dinner speech, even at a temperance banquet, and by a man of science like Dr. Richardson, to a process of cold criticism. We shall not be so ungenial. We rejoice that a man of such varied and technical knowledge should be at such pains to lend his influence to the cause of temperance. We are sometimes charged as a profession with the grave sin of having started men and women, on wrong medical theories, in a career of intemperance and rapid degeneration. It cannot be said now that the leaders of medical thought and practice tend to err in this way. And, though our desire is to see medical men treat this subject scientifically rather than popularly, or even socially, we cannot but be glad at a warm, outspoken, and even slightly rhetorical address being delivered in vindication of temperance by a medical man of acknowledged eminence and originality.

We must put on record in our pages the opinion of Mr. Darwin, given in a letter to Dr. Richardson, thus:—"I have been brought to the conviction, from the very large experience of my father and grandfather, which has extended over a century, that no cause has led to so much suffering and inherited ill-health as the consumption of alcohol."

LIABILITY OF MASTERS FOR EXPOSURE OF SERVANTS SUFFERING FROM INFECTIOUS DISEASES.

OUR readers are aware that the Sanitary Committee of Brighton, fully supported by the Town Council, had resolved to institute proceedings against a lady, Mrs. Charlton, of the "Lisburn," Thornton-heath, Croydon, for that she "having and being in charge of one Louisa Carpenter, a person suffering from a dangerous infectious disorder—to wit, measles—did wilfully expose her while so suffering, in the street, or public place, and a public conveyance, without proper precautions against such disorder." The person in question, Louisa Carpenter, was Mrs. Charlton's maid. The magistrates, while having no hesitation in saying that Mrs. Charlton had taken a very wrong course, both legally and morally, thought it better to decide that the Corporation had not made out their case, and that each party should pay their own costs. One point in the case was raised by the defendant's counsel—viz., whether the words "in charge" could be applied to domestic servants. There was a discrepancy between Carpenter and her fellow-servant as to the share of the mistress in sending the girl from Croydon to Brighton with measles. But it was admitted that she wrote the telegram to the girl's friends at Brighton. We regret, on public grounds, the decision of the magistrates, and think it very inconsistent with their belief that the lady was wrong, legally and morally. Mr. Sleigh intimated that the Brighton Corporation should appeal against the decision, which we hope they will do. The question is a most urgent one, and cannot be too soon settled.

SCARLATINA AT THE DINNER-TABLE.

THE last official Report on Public Health that has been issued from the Medical Department of the Local Government Board, contains a very interesting account of an outbreak of scarlatina in South Kensington. The inquiry was conducted and the report written by Dr. Buchanan, from which it appears that in June of last year a dinner-party was given at the house in question, at which sixteen persons were present, and also an evening party, which included some 150 persons, as well as some of the junior members of the family. Between three and five days after the date of the party, twelve persons who were in the house on that day were attacked with scarlatina, and six others with sore-throat, or with sore-throat and other symptoms resembling scarlatina—i.e., four out of a family of seven, three out of seven servants, six out of twelve dinner guests, four of the evening guests, and one of the occasional servants employed. The inquiry appears to show conclusively that direct infection may in this case be negatived as well as fomites and local conditions. The fact of a dinner party being especially attacked naturally brought in question articles of food and drink. We must refer our readers to the report for special particulars of the evidence, which after a most industrious inquiry proved that those chiefly affected partook of articles of food in which a certain special supply of cream formed an important ingredient, and those who did not partake of these articles (at least those of the dinner guests) escaped. The inquiry is, however, so far incomplete in that it fails to trace back the actual source of the outbreak. Dr. Buchanan, in concluding a most minute and painstaking relation of facts, says in conclusion:—"All that can be said is that the distribution of the disease is wholly unaccounted for, unless infection of a particular cream-supply accounts for it. I believe the failure to get more definite evidence has been owing to the complicated nature of the conditions that had to be investigated. I should hope much from the prompt investigation of future cases that may bear a general resemblance to the foregoing, more particularly if they occurred under the simple circumstances of a rural district. Already two or three instances having many points of resemblance to this South Kensington outbreak of scarlatina, apparently spreading from dinner-tables, have been met with in London since this inquiry was begun."

OUR TROOPS AND THE HEAT.

WE see that Mr. Rylands, in the absence of Mr. Holms, asked the War Minister whether the troops might not, during the intense heat, be exercised early in the morning or after five o'clock in the afternoon. This question was put in consequence no doubt of the report, since contradicted in *The Times*, of the death of two soldiers of the force encamped upon Blackheath, near Guildford, from sunstroke. Mr. Hardy intimated, in reply, that no report of sufferings on the part of the troops had reached the War Office, and added that the men were, as a rule, exercised early in the morning during the very hot weather, except on the occasion of the visit of the Commander-in-Chief and staff, when it had been necessary to parade them at hours when the heat was no doubt very great.

We are opposed to "coddling" our soldiers, but it surely cannot be necessary to expose them, on parade, waiting for hours, it may be, to the heat of a midday sun. It may be asked how it is that the young men of our universities and public schools and the various "elevens" of different counties can engage in those physical contests of which the papers have been full of late, and how it is that the "navvy" or agricultural labourer can perform his work with impunity under circumstances which seem to knock up the soldier altogether? Setting aside other factors, we believe that the thicker, heavier, and tighter dress of the soldier, his constrained position, and the sustained action of certain muscles, as well as the very contiguity of many individuals to one another that necessarily obtains in military parades and exercises, all tend to increase enormously the sense of fatigue and heat in the case of the soldier.

POISONING BY PRUSSIC ACID.

THE melancholy case of suicide by prussic acid, in the person of a medical practitioner of Hackney, affords an illustration of the fact that between the taking of this terrible poison and its fatal effect, in some cases, several minutes may elapse, during which volition may have some play. The unfortunate gentleman in this case, after taking the acid, suddenly left the house, went down the road, and having walked about thirty-five yards quite steadily, fell to the ground. He was carried into the house. Dr. Tripe was sent for, and tried to administer some ammonia, but the deceased could not swallow, and died in five minutes—that is, we presume, from Dr. Tripe's arrival. Dr. Tripe was disposed, at first, to think that death could not have been caused from prussic acid, in consequence of the distance walked and the time that elapsed before his death, but he was convinced of the contrary by the strong odour of prussic acid in the contents of the stomach post mortem. In the deceased's pocket was a bottle which had contained prussic acid, lightly stoppered, and pressed down with a handkerchief. These particulars

are of great medico-legal interest, and might have very important bearings. Such volitional acts after a large dose are very rare, if not altogether unprecedented.

TESTIMONIAL TO MR. SIMON.

A TESTIMONIAL to John Simon, Esq., C.B., F.R.S., late Medical Officer of Health to the Privy Council and Local Government Board, in recognition of his eminent services in sanitary science, is now being promoted by a committee of medical officers and others formed for that purpose. The co-operation of persons interested in the organisation and administration of the sanitary laws is invited. It is proposed the testimonial should take the form of a scholarship and medal; but suggestions on this point are invited of subscribers. Mr. Alfred Haviland, medical officer for Northampton, has undertaken to act as honorary secretary.

A POSSIBLE COMPLICATION OF THE EASTERN QUESTION.

EARL DERBY'S speech has had a profoundly quieting effect, it is said, on political circles abroad, but there is a possible complication of the Eastern question of a less reassuring character, which has probably never been contemplated by politicians. It seems to us that it might be well for our Government, in concert with those of other countries, to ascertain that the Turkish Government would take every precaution against plague being introduced into Europe by the Asiatic troops now being employed at the seat of war. Many of them have, no doubt, lately served in districts infected by the plague.

THE CONTAGIOUS DISEASES ACTS.

UNPREJUDICED persons who regard the working of the Contagious Diseases Acts from a practical point of view will be glad to learn that the prospect of success for the clique arrayed against these prudent public sanitary measures has been clouded over effectually by a division, giving a majority of 122 against the proposal to repeal the Acts. Last year the agitation was rejected by eighty-two votes. The large increase of numbers opposed to the project of retrogression ought to finally discomfit the movement.

SIR WILLIAM FERGUSSON.

WE are happy to be able to report that Sir William Fergusson continues to improve and to regain strength. Friends who have seen him recently, after a long interval, are delighted and astonished at his improved appearance. He drives out daily, and at the end of the month he will start for Scotland.

THE Princess Louise on Wednesday laid the foundation-stone of a new wing to the Royal Hospital for Diseases of the Chest, City-road. Her Royal Highness was conducted over the hospital by the members of the medical staff, after which she proceeded to a marquee which had been erected on the grounds, and where the ceremony took place. The institution was founded about fifty years ago, and has since that time relieved a very large number of consumptive and other sufferers. With the completion of the new wing, additional accommodation for fifty in-patients will be provided.

THE Annual Inspection of the Port of London by the Sanitary Committee of the Corporation took place on Monday last. The *Victoria* conveyed the party, who visited one of the school-ships and the hospital-ships *Rhin*. The Committee afterwards dined at the "Trafalgar."

WE observe in the fifty-fourth report of the Inspectors-General on the state of the prisons of Ireland that the inspectors call attention to the progressive increase since 1867 in the number of persons committed for drunkenness. They repeat the remarks made by them in a previous report, that short sentences of imprisonment for drunkenness have not proved deterrent, as in most cases they merely provide the offenders with a comfortable shelter and medical advice during the time they may be recovering from the effects of their debauch, and recommend that power be given to justices to imprison for drunkenness without the option of a fine. It would appear that there is a vast difference in management of the several Irish prisons. In some gaols the separate system is strictly maintained, while in others, owing to the structural defects of the buildings, the inmates are in association, and are not subjected to the penal discipline which should be enforced in every gaol. It is greatly to be desired that one uniform system should be carried out, and it is satisfactory to find that the subject is receiving the consideration of Parliament.

A BRIEF report of the sanitary condition of Cambridge in 1875 has been issued by Mr. B. Anningson, M.B., medical officer of health. As Mr. Anningson's appointment only received the sanction of the central authority in May, he has not attempted to make returns for the whole year, and his report, therefore, is an imperfect one. There is evidently much work to be done by the health authorities of Cambridge in putting the town in order. Although there is a general system of sewerage for the greater part of the borough, there is one district (Sturton-town) where there are nearly 800 houses with no better means of sewage disposal than middens and cesspools, the latter being of the worst possible description, and allowing of soakage into the subsoil. Many of the wells in this quarter "give plain indications of contamination." The sewers themselves appear to be in an unsatisfactory state from various defects, such as discharging into the river at several points within the town, and being badly constructed and unventilated. The scavengering should also be looked to, as there is no organised system of removing the house refuse.

THE annual conference of guardians of the metropolitan parishes and unions was held on Monday, under the presidency of Mr. W. E. Forster, M.P. The following papers were read: "The Proposals for Combined Management of the District and Separate Pauper Schools of London," by Mr. G. H. Draper; on the "Use of Alcoholic Stimulants in Workhouses and Infirmaries, and on the Treatment generally of the Sick Poor," by Dr. N. S. Kerr; and "Suggestions for the Reduction of Out-relief in the Metropolis," by Mr. Crowder. Dr. Kerr, in his paper, stated that much experience had convinced him that, in the ordinary treatment of the sick poor, alcoholic liquors of every description are quite unnecessary. In the discussion which followed, Dr. Bridges deprecated hasty conclusions on one of the most difficult questions now before the profession.

A CORRESPONDENT of the *Daily Telegraph* calls attention to the danger to the public health arising from the condition of cisterns belonging to some small houses between London Bridge and South Bermondsey station, visible from the South London Railway. Some of these water receptacles were without any covering, and disclosed a few inches of water coated with the green growth usually seen on stagnant ponds. In other cases the so-called cisterns were partly covered by rotten and broken lids. A house-to-house inspection of cisterns and water-receptacles in Bermondsey is evidently called for.

THE *Chicago Medical Journal and Examiner* for June contains a report by an army surgeon of transfusion of defibrinated human blood in a case of tubercular phthisis. The patient was reduced to the last stage of emaciation and exhaustion and was not expected to live forty-eight hours. Nearly four ounces of blood were injected, when, the patient complaining of a sense of fulness in the head, the operation was stopped. Just before the operation his temperature was a little over 102° F., pulse 105, and respiration 34, and he was in great distress. Very soon after the operation his respiration fell to 27, with a lowered temperature and pulse, and he breathed comfortably. The night-sweats, which had been very severe, ceased on the third night after the transfusion, and the hæmoptysis, which had been frequent, disappeared. "He began at once to gain appetite, strength, and flesh. In less than a month he gained seventeen pounds in weight, and is increasing in weight at the rate of three-quarters of a pound daily. The dyspnœa is now insignificant and the destruction of lung-tissue seems to have been arrested."

A GOOD deal of opposition continues to be shown towards the vaccination process by the native population of Jamaica. Several epidemics of small-pox prevailed in different parts of the island last year (imported in one instance from Cuba) in spite of the great efforts made by the doctors to stamp out the disease. The superintending medical officer, reporting on the outbreaks, says that the people have resisted all advice in the matter of sanitary and precautionary measures, have courted small-pox by wilful and unnecessary exposure to its influences, by refusing in very many instances the safeguard of vaccination, and by the display of a remarkable selfishness. The disease would, says the medical officer, have been extirpated in its early stage but for the obstinate resistance offered to all the protective measures adopted. The large public institutions where vaccination could be enforced escaped almost entirely the ravages of the disease, although situated in districts which suffered severely from small-pox.

THE Commissioners in Lunacy, after their last visit to the Newcastle-upon-Tyne Borough Lunatic Asylum, reported that the use of seclusion and restraint in the asylum is, in proportion to the number of patients, much larger than in other similar institutions in their jurisdiction. Whilst making every allowance for the unfavourable nature of some of the cases, and admitting the minuteness with which each instance is recorded, the Commissioners express a hope that, by care and perseverance, some other and less objectionable means may be adopted in the management and treatment of cases of the description indicated. The water-supply of the institution appears, also, to be susceptible of improvement.

THE medical officer of health for the urban sanitary district of Falmouth, Dr. Bullmore, has reported that the annual death-rate in that borough during June was nearly equal to 34 per 1000 persons living. This high death-rate was probably mainly due to scarlet fever, which has recently been fatally prevalent in the town. The deaths in Falmouth have considerably exceeded the average during each of the last three quarters.

A MERCHANT of Bradford, Mr. Charles Semon, during last year, erected at Ilkley a large and handsome Convalescent Home. He has recently offered to convey the institution to the Bradford Corporation, together with an endowment of £3000, as a fund to meet the working expenses. The Town Council, at a recent meeting, agreed to accept the trust.

A CONTROVERSY has taken place in Manchester relative to an inquest lately held on the body of a child that had died of small-pox, and at which one of the jurymen unfortunately became infected and died. It is asserted, on the one hand, that the cause of death being well known, an inquest was worse than superfluous, while others urge that a sufficient justification for the proceeding is found in the fact that the block of houses where the child had lived is in a very bad sanitary condition as regards drainage, &c. As our information rests on a meagre newspaper report, we will not venture to express an opinion on the case.

THE Local Government have issued orders, under the terms of the 286th sec. Public Health Act, 1875, providing for the union of the rural districts of Anglesey and Holyhead, and the urban sanitary districts of Holyhead and Beaumaris, under one medical officer of health. The order was issued on the 1st inst.

A GENERAL meeting of the Poor-law Medical Officers' Association will be held at the Century Club, 6, Pall Mall-place, on Monday, July 31, at 3 P.M. precisely, for the purpose of electing the officers and council, and for considering what public course shall be followed to give effect to the objects of the Association.

IN London last week 1475 deaths were registered, including 2 from small-pox, 24 from measles, 35 from scarlet fever, 9 from diphtheria, 42 from whooping-cough, 12 from different forms of fever, and 249 from diarrhœa.

DR. JOHN WILLIAMS, Assistant Obstetric Physician to University College Hospital, has been made a Corresponding Fellow of the Medical and Physical Society of Moscow.

THE latest returns of the Hospital Sunday Fund give a total amount of £28,800.

THE EXPLOSION ON BOARD H.M.S. "THUNDERER."

THE chief incidents relating to the sad accident that occurred on the 14th inst. on board H.M.S. *Thunderer*, have already been made fully known, and further details will doubtless be forthcoming at the inquiry now pending. We have, however, deemed it desirable to ascertain personally the nature and extent of the injuries received by the unfortunate victims. It is computed that at the time of the accident there were about 300 persons on board, including about 100 stokers, there being between fifty and sixty men actually in the stoke-hole and the engine room. The cause of the catastrophe has not yet been ascertained; all that may be said to be definitely known at present is, that the *Thunderer* was about to undergo the usual trial of speed on the measured mile in Stoke's Bay, and had been under weigh only a few minutes, when one of the boilers exploded with terrific violence, filling the stoke-holes and engine rooms with scalding steam, which soon made its way through almost every compartment of the ship, killing fifteen men outright, and so severely scalding many others that they died within a few hours. It has been alleged that there was only a pressure of thirty pounds on the boilers at the time. It may be fairly contended that this statement is scarcely likely to be correct, and means will be taken to ascertain its truth. It is too true that in testing the speed of the iron war-ships no efforts are spared to attain in the shortest possible time the highest possible steam-pressure. There is already

strong suspicion, which may or may not be without reasonable foundation, that in this instance the steam in the boilers was generated too rapidly, and that even if the safety-valve had been quite open, it would not have been adequate to relieve the enormous strain on the boiler. These and cognate matters, however, may be safely left to be discussed by those practical and scientific persons entrusted with the investigation of the real cause of the accident.

Respecting the injuries received it may be observed that in almost every case they partook of the nature of burns or scalds, affecting chiefly the face, larynx, the upper extremities, especially the hands, and more rarely the trunk and the lower extremities. The severity of the scalds was in many instances almost beyond conception: fifteen men were killed on the spot, and four others died during transmission to the hospital. It is not necessary to describe, as some have done, the harrowing details of speedily fatal cases; it is sufficient to state that they were for the most part scalds of the severest possible form. It is curious, however, to note that in one or two instances death appears to have taken place from spasm of the glottis and rapid œdema produced by the inhalation of superheated steam. Most of the later deaths have also been, directly or indirectly, due to laryngeal affection associated with shock. Altogether fifty-nine injured men were admitted into Haslar Hospital for treatment. Of these nineteen died within four days, making a total of thirty-eight deaths. When we last visited the hospital on Wednesday there were forty men and one officer under treatment; but one of the patients died shortly after our visit. The cases were distributed in the wards of the centre block as follows:—Seventeen slighter cases in the upper ward, five cases in the middle ward, and seventeen of the severer cases in the lower ward, and one officer in the officers' quarters. This happy arrangement was adopted at the suggestion and carried out under the direction of Deputy Inspector-General Loney, who has had charge of the sufferers from the first, and whose kindness, attention, and zeal have throughout won the admiration of all. Many of the patients in the lower ward were, when we saw them, extremely ill, several of them presenting symptoms of laryngeal and pulmonary mischief; a few had not recovered from collapse, and were even then semi-unconscious. Most of these patients have been badly scalded about the face and upper part of the trunk, as well as on the arms. The face especially is in many of the cases swollen and greatly disfigured, but it is remarkable that few of the men complain of pain or of much discomfort. All the cases have been from the first dressed with carron oil, of which the floors of the various wards present unequivocal evidence. Stimulants and sedatives are given in those cases which call for them, but, as a rule, no medicines have been given. It may be added that one poor man, in addition to his scalds, was admitted with comminuted fracture of the left leg and compound fracture of the right ankle-joint, with disruption of part of the os calcis. He gradually sank and died within a few hours.

When we consider that at the time of the accident Haslar Hospital contained an unusually large number of surgical patients, and that consequently every member of the staff was fully occupied, we cannot but admire the promptitude and the calmness with which the Deputy Inspector-General and his assistants, Surgeons Kell, Wood, Irvine, and Laslett, discharged the laborious duties so suddenly and unexpectedly thrown upon them. Curiously, the Director-General of the Medical Department chanced to be at Portsmouth at the time, and had a rare opportunity of witnessing the operations of the surgical staff at the hospital. Indeed, Sir Alexander Armstrong took occasion to commend the zeal and energy with which the whole staff set about and accomplished their work,—such work, he added, as men are seldom called upon to perform. He referred especially to the devotion of Dr. Loney, who, he said, had had to bear the brunt of the affair. Sir Alexander, perceiving the extent of the extra demands on the time and strength of the regular staff at the hospital, has appointed Staff-surgeons Goodman and Burgess to assist in the special work.

It would be ungracious not to refer to the deep solicitude shown by Her Majesty the Queen and the Prince and Princess of Wales for the unfortunate sufferers and their families. The arrival of Her Majesty is almost hourly expected at the hospital.

MEMORIAL TO THE LATE DR. PARKES.

A PUBLIC meeting was held at University College, Gower-street, on Tuesday, the 18th inst., to further the establishment at that institution of a permanent memorial of the late Dr. Parkes. The chair was taken at 3 P.M. by Sir William Jenner, and among those present we noticed Dr. Sieveking, Dr. Sibson, Dr. Carr of Blackheath, Dr. Hare, Dr. Wilson Fox, Dr. Tilbury Fox, Mr. Berkeley Hill, Professor John Marshall, Dr. William Farr, Professor Erichsen, Dr. Russell Reynolds, Mr. Symonds of Oxford, Mr. Marcus Beck, and others.

The CHAIRMAN, in opening the proceedings, feelingly alluded to the association of Dr. Parkes with University College. His fame was to a great extent made at the College, and although his work at University College had mainly been in the direction of clinical medicine, it had nevertheless been thought advisable to perpetuate his memory there in relation with the subject with which he had been latterly identified—viz., hygiene. The Chairman hoped that, whatever form the memorial took, it would be permanent, and that Parkes's name would be as well known in that College 500 years hence as it is at present. A museum which should facilitate the practical study of hygiene was no doubt needed, but any museum, to be properly kept and properly replenished, must be endowed, and he therefore trusted that the public would subscribe largely, in order that the necessary endowment might be forthcoming. After alluding to the great necessity for the practical study of hygiene, the Chairman called upon the secretaries to make their reports.

Dr. GOWERS read many letters expressing approval of the scheme, and notably one from Miss Nightingale, in which she spoke in terms of warm approbation of Dr. Parkes, and of the manner in which it was proposed to perpetuate his memory. Sir Wm. Gull, Dr. Wilks, Professor Aitken, Mr. Rogers Field, and others also spoke approvingly of the idea of establishing a museum.

Dr. POORE gave details of information he had collected relative to museums of hygiene existing elsewhere. He had lately visited (on his own responsibility, and in no way as the secretary of the fund) the museum and laboratory at Netley, and the International Exhibition at Brussels. At Netley he found that Dr. Parkes's teaching had all been of an essentially practical kind, and that great use was made for teaching purposes of the laboratory and museum there existing. One great feature at Brussels was the wealth of architectural plans, and it was evident that hygiene was a subject susceptible to some extent of comparative study, and that one nation might learn much from another nation whose conditions of existence were different. A museum should contain—1, a library of hygienic literature; 2, chemical, physical, and meteorological apparatus; 3, a collection of foods and their adulterations; 4, architectural and engineering plans and models; 5, models and samples of sanitary appliances; 6, objects illustrative of industrial hygiene, and of the diseases communicable from animals to man, &c.

Dr. RUSSELL REYNOLDS proposed, and Dr. CORFIELD seconded, the first resolution, "That it is desirable that the memorial take the form of a museum of hygiene," and in doing so both these gentlemen dwelt upon the necessity of the practical study of hygiene. The resolution was carried *nem. con.*

Dr. SIEVEKING proposed, and Mr. SYMONDS, of Oxford, seconded, a resolution to the effect that the executive committee should consist of the Professors of Hygiene (Dr. Corfield), Medicine (Dr. Reynolds), Surgery (Mr. Marshall), Architecture (Mr. Hayter Lewis), Engineering (Mr. Kennedy), and Chemistry (Dr. Williamson), with Sir Wm. Jenner as Chairman, Mr. Erichsen as Treasurer, and Dr. Gowers and Dr. Poore as Secretaries.

A vote of thanks to the chairman was proposed by Mr. Erichsen.

Dr. Gowers announced subscriptions to the amount of £577. These included £52 10s. from Mr. C. H. Parkes; Dr. Quain, £21; Duke of Westminster, £20; Mr. Wm. Paget, £25; James Booth, £20; £10 10s. from each of the

following: Lord Derby, Lord Granville, Lord Belper, Marquis of Ripon, Mr. Gathorne Hardy, Sir Wm. Jenner, Sir James Paget, Sir Wm. Gull, Sir Thomas Watson, Sir H. Thompson, Mr. R. Quain, Mr. Erichsen, Dr. Reynolds, Dr. Wilson Fox, Dr. Hare, Dr. Bucknill, Dr. Sankey, Mr. Prescott Hewett, Dr. Weber, Mr. Erasmus Wilson, Mr. F. Symonds (Oxford), Mr. John Fowler, C.E. The list also included donations from Sir Thomas Fairbairn, Dr. Sharpey, Dr. Sanderson, Miss Nightingale, Mr. Rogers Field, Dr. Sibson, Dr. Sieveking, Dr. Wilks, Dr. Wm. Farr, Mr. George Dixon (Birmingham), Dr. Aitken, Dr. de Chaumont, and others.

BRITISH MEDICAL ASSOCIATION.

THE forty-fourth annual meeting of the Association will be held at Sheffield on Tuesday, Wednesday, Thursday, and Friday, August 1st, 2nd, 3rd, and 4th. The President for the year is Sir Robert Christison, Bart., M.D., and the President-elect Dr. O. de Bartolomè. The Address in Medicine will be delivered by Dr. Sieveking, that in Surgery by Mr. W. F. Favell, and that in Public Medicine by Dr. Alfred Carpenter. The officers of sections are as follows:—Medicine, Dr. Chadwick; Surgery, Mr. Jonathan Hutchinson; Obstetric Medicine, Dr. Lombe Atthill; Public Medicine, Dr. J. B. Russell. The programme for the week includes a soirée, a public dinner, a promenade concert, and excursions to Chatsworth, Wentworth, Wharncliffe, and other places. A museum of the Association will be held in the Cutlers' Hall, where there will be exhibited new instruments and appliances, new drugs and new preparations, pathological specimens with photographs, microscopes, and new inventions relating to public health.

Correspondence.

"Audi alteram partem."

MR. GLADSTONE ON MEDICAL EDUCATION.

To the Editor of THE LANCET.

SIR,—The address delivered by Mr. Gladstone at the London Hospital was of extreme interest as containing the matured thoughts of a man who, having, as he said, no practical knowledge of the working of our profession, yet was enabled, from general considerations and reflections, to offer valuable opinions on many subjects of interest to us. His remarks, for example, on specialism, are worthy of great attention, and more particularly the observations which he made on experience as our only guide to practice. He said, "The public began to comprehend that the medical profession laid no claim to what he might call cabalistic methods—that is to say, it did not depend upon formulæ, but relied upon experience, endeavoured to track the truth, and followed the laws of common sense."

At different periods in the history of medicine many systems of treatment have been in vogue, but at the present time, when thinking of formulæ, we naturally revert to homœopathy. This system is no doubt perpetuated because to some minds it presents the charm of a precise scientific method—the very reason why, to a higher order of intellect like Mr. Gladstone's, it is fallacious. The professors of the system allow their supporters to be enamoured of the doctrine, whilst they constantly deny to their opponents the right of objecting to it on theoretical grounds; but it may be shown to be open to attack on the more general principle of offering a formula for the cure of disease.

For, let the proposition be maintained that there is a formula of the kind, it must represent a law of nature and be as fixed as gravitation or any other natural law. It must always have existed and must necessarily continue to do so. But let us ask ourselves what are the probabilities of such a law having been discovered? We must remember, in the first place, that Mill and some other great philosophic writers have regarded physiology, or a knowledge of the organisation of man, as amongst the last which will be placed on a perfect scientific basis, and, therefore, it is only just to suppose that the discovery of a law (if possible) which should regulate or restore the deranged machinery of the body would also be amongst the latest of our achievements. But we are told that we are already in possession of it. We may be still in ignorance of many laws which regulate inorganic matter, and of many more which operate in the complex processes of the animal body, but we have at once jumped over all these and reached the highest point of discovery. We ask if this is probable in the present stage of scientific progress? Grant that there may be a flaw in the argument, and let us take the law as given us; then let us ask if it be possible that it can have been before the scientific world for half a century and not accepted by the best educated men in the profession? Its rejection alone proves its falsity. Can it be conceived that a newly discovered law in physics or chemistry could be discarded by the professors on those subjects for fifty years after its propagation? They must have accepted it, and they would have done so gladly. They could not have been men of science and ignored it; the very words are contradictory.

Considering, then, the complex machinery of the animal body and the thousand influences acting upon it for good or for evil, and then considering the present imperfect state of knowledge of minor things, the proposition of a formula for curing disease is beyond credence. Mr. Gladstone clearly saw this, and therefore homœopathy may at once be rejected, without offending its supporters or even mentioning its name, by simply denying the possibility of any formula whatever for curing disease.

I am, Sir, your obedient servant,

Grosvenor-street, W. S. W.

SANITARY STATISTICS OF H.M. CUSTOMS.

To the Editor of THE LANCET.

SIR,—I beg leave to correct a numerical error which has crept into your notice, in last week's number, of the annual report on the health of the Customs officers. The mean daily number incapacitated by disease and accident is stated to constitute 36 per cent., whereas it is in reality only 3·6 per cent., or 36 per 1000. And that is a rather high proportion, the ratio for many years being about 3 per cent. The sick-list in 1875 was heavy, but the mortality was remarkably small, being at the rate of 7¼ per 1000, and, excluding death from accident, only 6¼ per 1000. We have thus an instance of what is believed to be not uncommon—viz., much sickness with a low mortality, as in other years there have been sometimes found a comparatively small amount of sickness and an unusually high mortality. As a contribution to the much desiderated registration of disease, these statistics, which are unique in their way, possess a certain value as indicating the general health-condition of adult males resident in the metropolis.

A salient point in last year's report was a general summary of many years in a comparative table of the sanitary state of the military and naval forces, *on the home station*, and the Customs officers of the port of London as probably a fair type of the civil community. The results are:—

	Army.	Navy.	Customs.
Mean daily number on sick-list, per 1000	48	41	29
Deaths, per 1000	9¼	9	12¼
Invaliding and superannuation, per 1000	34	28	8
Annual loss of time per man, in days	17	15	11

The higher mortality in the Customs force is explained by the fact that in it are many men from 50 to 70 years of age, a class unknown in the army or navy, and also that most cases likely to terminate fatally from phthisis and other chronic diseases are invalided at an early date from the army or navy and do not die in the service. Notwithstanding their youthful vigour and comparatively easy lives, soldiers and sailors, even on the home station, show a much larger proportion of sickness and, more especially, of invaliding than those who, with the responsibilities, enjoy

the domestic comforts of ordinary citizens as well as the regularity of life promoted by wholesome discipline.

I remain, Sir, yours faithfully,

Custom House, July, 1876. WALTER DICKSON, M.D.

*** By an accident the decimal point between the numbers 3 and 6, in our abstract of last week, became obliterated in the process of striking off. Dr. Dickson cannot have observed the space between the figures.—ED. L.

THE DRESS OF THE POLICE.

To the Editor of THE LANCET.

SIR,—Permit me respectfully to call your attention to the absurd and unhealthy practice, enforced by the Police authorities, of clothing the constables of Great Britain, in the hottest period of the year, in thick, heavy broadcloth, admirably suited, but not just at present, for an expedition to the North Pole, and of fastening their necks with tight-fitting black stocks, which attract heat, impede natural respiration, and debilitate the constitution of the strongest. At the time I am writing the thermometer stands at 120° in the sun. Imagine the sufferings of our town and country policemen, who may, in the course of their duties, be called upon to walk ten or twenty miles a day; and they dare not unbutton their coats or relax their suffocating black chokers without an order from head-quarters. Pray, Sir—to use a familiar expression of our Premier—endeavour to educate our police rulers in the spirit of this simple truth, "that there is a time for all things," and that it is cruel in practice and at variance with sanitary principles to clothe working men in the summer with the same garments which they use in winter. My experience tells me that working men and women, be their labours great or little, know when to put on a warm dress, and when to exchange it for a cooler; and why it should be supposed that our policemen are incapable of judging of the effects of weather, and why a light serge coat and summer trousers should predispose them to fever and rheumatism, I am at at a loss to understand; for this is the line of argument adopted by absolute lovers of routine "for wishing matters to remain as they are." A word in season by you in support of my suggestion would ensure ultimately the means of giving comfort and relief to nearly 30,000 fine, brave fellows who are now sweltering and weakened by excessive perspiration.

I am, Sir, your obedient servant,

R. ARTHUR KINGLAKE,

Taunton, July 17th, 1876. Magistrate of the County of Somerset.

Obituary.

SIR JAMES LOMAX BARDSLEY, M.D.

By the death of Sir James Bardsley, which we briefly announced last week, Manchester has lost one of its most prominent citizens, and the profession a distinguished member. Sir James was a native of Nottingham, where he was born in 1801. He received his education in Scotland, studying at the Universities of Edinburgh and Glasgow, and graduating Doctor of Medicine of the former University in 1823. Soon after, he settled in Manchester, where he was fortunate enough to secure the appointments of physician to the Infirmary, and lecturer on the Practice of Medicine, &c., at the School of Medicine. He speedily established a good connexion in the town. In 1853 he received the honour of knighthood, at the same time that a similar distinction was conferred upon a London physician, Sir John Forbes. He continued to fill the appointment of physician to the infirmary for many years, and when, in consequence of his arduous private engagements, he resigned, he received at the hands of the Board of Management a well-merited recognition of his diligent and valuable services during the period he had been connected with the institution.

Sir James enriched medical literature with contributions of proved and acknowledged merit, some of which are of permanent value. In 1850 he was elected president of the Manchester Medico-Ethical Association, an office which he held for some years. Although he was a justice of the peace and a deputy-lieutenant for the county, he seldom took any part in public affairs. In private life the deceased was greatly esteemed by a large circle of friends. "It would not be correct," says one who knew him, "to attribute to him great intellectual acquirements; for he did not possess them. What distinguished him was the possession of good common sense and sound judgment rather than deep learning. He was essentially a practical man." For some years Sir James, conscious of failing health, had gradually reduced the extent of his work, and during the last twelve months had not engaged in any medical labour. He had been slowly sinking for some time, and more than a week before his death all hope of his recovery was abandoned. He died from disease of the heart, having at the last suffered greatly.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates on July 18th:—

Batchelor, Henry Thomas, Worcester, Cape of Good Hope.
Bowen, Alfred Longmore, Guy's Hospital.
Buckell, Leonard Martin, Romsey.
Collenette, Frank de Beauchamp, Guernsey.
Fisher, Stephen Henry, London Hospital.
Footner, John Bulkley, Bethlem Hospital.
Gibbes, Cuthbert Chapman, Surbiton.
Hames, George Henry, St. Bartholomew's Hospital.
Hancock, John Gatchell, Downshire-hill.
Harvey, William Yeo, Stanhope-street.
Hayes, Francis George, Cathcart-road.
Jackson, Robert Alexander, Notting-hill-square.
Kirtikar, Kanoba Ranchoddas, Euston-square.
Lang, Henry Charles, Berners-street.
Makuna, Manikji Dosabhai, Norman House, Prince of Wales-road.
Morshead, Ernest Garstin Anderson, Salcombe Regis.
Perry, Edward Verdon, St. George's Hospital.
Pronger, Charles Ernest, Crawley, Sussex.
Rees, David Valentine, London Hospital.
Ritchie, John Lichtenstein, St. Thomas's Hospital.
Sawtell, Tom Henry, River-street.
Sellon, John William Gore, Budleigh Salterton.
Upton, Alfred, Halton-road.
Vernon, Mark Henry Herbert, St. Bartholomew's Hospital.
Verrall, Thomas Jenner, Dane's-inn.
Walker, George, jun., Cottenham, Wimbledon.
Williams, William Henry, Grafton-street, Fitzroy-square.
Woodward, Frederick Edward, St. Bartholomew's Hospital.

The following candidates having passed in Medicine and Midwifery, will receive the College Licence on obtaining a qualification in Surgery recognised by this College:—

Eve, Frederic Samuel, Lady Margaret-road.
Lithgow, Thomas George, Kensington-park-road.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology, at meetings of the Board of Examiners on the 14th, 17th, and 18th inst.:—

C. A. Everest and S. V. Theed, Guy's Hospital; D. Williams, A. Blair, J. Homes, J. E. Pritchard, J. H. Oldroyd, H. E. Davis, A. A. Robinson, W. E. Davies, W. H. Copley, A. D. Maitland, A. H. Robinson, W. G. Burnie, J. O. Connor, and C. D. Briggs, University College; G. Shaw, Westminster Hospital; E. M. Harrison, J. Brown, H. C. Rowbotham, E. S. Pattison, and H. Hoole, Charing-cross Hospital; W. J. Jolliffe, L. A. Cantin, A. Weakley, H. D. Halliday, J. B. Rusher, A. Hepburn, and G. A. Farrer, St. Bartholomew's Hospital; R. Norman and P. Warwick, St. George's Hospital; R. B. Bothamley, A. J. Jefferson, and J. E. Lunn, St. Thomas's Hospital; P. F. Solomons, Calcutta and St. Thomas's Hospital; W. R. Scroggie, Bombay and St. Bartholomew's Hospital; J. F. H. Bottrell and H. C. Allinson, King's College; A. J. Bisdee, St. Mary's Hospital; M. E. Ling, J. S. Nicholl, and G. H. Harvey, London Hospital; M. J. Verdon, Liverpool and King's College; and E. G. Betts, Middlesex Hospital.

Of the 147 candidates examined during the last and present week, 51 failed to satisfy the Board of Examiners, and were referred for three months' further anatomical and physiological study.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on July 13th:—

Blackman, Josiah George, Southampton.
Blaikie, John Robert, Oswestry, Salop.
Goodsall, Frederick Walter William, Dryland-road, Canonbury.
Mears, William Pope, Bromley, E.
Phillips, Alfred, The Ferns, Primrose-hill-road.
Roberts, John Thomas, New Romney, Kent.
Tunley, John, Mayfield Ashbourne, Derby.
White William Robert, King's College Hospital.

The following gentlemen passed the Primary Professional Examination on the same day:—

Lockwood, Charles Barrett, St. Bartholomew's Hospital.
Norton, Thomas Chalmers, Bristol General Hospital.
Pearse, Thomas Frederick, Middlesex Hospital.

THE Library of the Obstetrical Society will be closed from Monday, July 31st, to Saturday, August 12th, both days inclusive.

THE fund for the family of the late Dr. Maunsell, of Dublin, has now been closed, the sum obtained amounting to nearly £500.

A "Sanitary Institute of Great Britain" has been formed in London. We are not yet acquainted with the programme of the executive.

MR. JOHN ROGERS has obtained a superannuation allowance of £50 per annum upon resigning as medical officer for the Claines District of the Droitwich Union, after twenty-five years' service.

THE foundation-stone of the Grimsby District Hospital was laid a few days ago by the Countess of Yarborough. It is calculated that the cost of erection, fitting up, &c., will amount to £8600, about half of which has already been subscribed.

IT is reported that Rio de Janeiro will shortly be provided with an abundant water-supply, at a cost of about two millions sterling, which is partly borne by the Brazilian Government. No less than 80,000 tons of cast-iron pipes have been ordered in this country.

AT a former meeting of the Governors of the Norfolk and Norwich Dispensary a gratuity was offered to Dr. John Craig Waddell and Mr. Horace Turner, the medical officers, but declined; and accordingly, at the annual general meeting, last week, they were appointed honorary life governors in recognition of their services.

IT is officially announced that the following gentlemen have been appointed commissioners to inquire into the working and management of works and manufactories from which sulphurous acid, sulphuretted hydrogen, and ammoniacal or other vapours are given off, to ascertain the effect produced thereby on animal and vegetable life, and to report on the means to be adopted for the prevention of injury, &c.:—Lord Aberdare, Earl Percy, Viscount Midleton, the Hon. Wilbraham Egerton, Mr. J. C. Stevenson, Mr. F. A. Able, Professor Williamson, Professor Roscoe, and Vice-Admiral Hornby. The Government have shown discrimination and judgment in the appointment of this commission.

Medical Appointments.

BARHAM, H. F. H., M.R.C.S.E., L.S.A.L., has been appointed Visiting-Surgeon for Maidstone, under the Contagious Diseases Acts (Women), vice Hallowes, resigned.

BIRD, G. G., M.R.C.S.E., L.S.A.L., has been appointed Resident Medical Officer to the Lock Wards of the Royal Portsmouth, Portsea, and Gosport Hospital, vice O'Connor, appointed Medical Officer to the Portsea Island Union Workhouse.

BROCKLEHURST, T. H., M.R.C.S.E. & L.S.A.L., has been reappointed Medical Officer of Health to the Barton-upon-Irwell Union Rural Sanitary Authority. £100 for one year.

BROWN, A. C., M.A., F.C.S., has been appointed Professor of Chemistry at Queen's College, Birmingham, vice Hill, resigned.

CRAY, J. H., L.F.P.S.G., L.S.A.L., has been re-appointed Medical Officer and Public Vaccinator for the Cromford District of the Bakewell Union.

DALY, F., M.D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Hutton District of the Stokesley Union, Yorkshire, vice Boyle, deceased.

DAVISON, F., L.R.C.P.Ed. & L.M., L.R.C.S.Ed., L.A.H.D., has been appointed Medical Officer and Public Vaccinator for the No. 1 Tottington District of the Bury Union, Lancashire, vice Carruthers, resigned.

DIXON, H. E., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Workhouse and Nos. 2 and 4 Districts of the Abingdon Union, vice Hemming, resigned.

EAGAR, Dr. E., has been appointed Medical Officer of Health for the Stourbridge Urban Sanitary District, vice Campbell, resigned. £50 per annum.

FORBES, W. G., M.B., C.M., has been reappointed Medical Officer of Health for the Stokesley Rural Sanitary District.

FOSBROOKE, F. J. R., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Resident House-Surgeon to the newly-established Dewsbury Hospital and Dispensary.

GIBBS, R., L.R.C.P.Ed., L.R.C.S.I., has been appointed Medical Attendant to the Royal Irish Constabulary, Coolock, co. Dublin, vice Elliott, resigned.

GORNALL, J. H., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Warrington Rural Sanitary District, at £100 per annum.

GRIFFITHS, F. T., M.D., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Sheffield Urban Sanitary District.

HANNAN, F. J., M.D., L.F.P.S.G., L.M., has been appointed Medical Officer and Public Vaccinator for No. 2 District of the Alderbury Union, vice Perkins, resigned; also Medical Officer to the Downton Branch, Wilts County Club, and to the Downton Provident Dispensary.

HOULDSWORTH, E., M.R.C.S.E., L.S.A.L., has been appointed an Assistant Resident Medical Officer to the Leeds General Infirmary, vice Frobisher, resigned.

HUTCHINGS, R. L., M.R.C.S.E., has been appointed an Assistant Medical Officer to the Lancashire Lunatic Asylum, Prestwich.

JENKINSON, Mr. A., has been appointed an Assistant Resident Medical Officer to the Leeds General Infirmary, vice Flood, resigned.

KEETLEY, C. R. B., F.R.C.S.E., L.R.C.P.L., has been appointed an Assistant-Surgeon to the West London Hospital, Hammersmith, vice Bloxam, resigned.

LAWRENCE, H. C., L.R.C.P.L., has been appointed Hon. Physician to the North-West London Free Dispensary for Sick Children, vice Owen, resigned.

LETTS, E. A., Ph.D., F.R.S.E., has been appointed Professor of Chemistry at University College, Bristol. £300 per annum, and proportion of students' fees; minimum £400 per annum.

MACPHERSON, A. F., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Resident Assistant House-Surgeon to the Liverpool North Dispensary, vice Clibborn, resigned.

MARSHALL, J. I. F., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the York Rural Sanitary District, at £150 for one year.

MASSEY, W., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer of Health for the Shardlow Rural Sanitary District, Derbyshire, vice Mackern, resigned.

MOCKETT, G. T., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for No. 3 District of the Penzance Union, vice Dunstan, resigned.

MULLIN, P., L.R.C.S.I., has been appointed Medical Officer and Public Vaccinator and Sanitary Officer for the New Ross Dispensary District of the New Ross Union, co. Wexford, and Sanitary Officer for the New Ross Urban Sanitary District, vice Rossiter, resigned.

O'CONNOR, Dr. J. F., has been appointed Medical Officer for the Longford District of the Ashbourne Union.

OLIVER, J., L.R.C.P.Ed., L.S.A.L., has been appointed Assistant Visiting-Surgeon for Maidstone, under the Contagious Diseases Acts (Women), vice Barham.

OTTLEY, W., M.B., M.R.C.S.E., has been appointed Demonstrator of Anatomy at the Westminster Hospital Medical School, vice Smith, resigned.

RUSSELL, W. S., M.R.C.S.E., L.S.A.L., has been appointed a Medical Officer to the Camberwell Provident Dispensary, vice Stothard, resigned.

STEWART, Mr. J., has been appointed Resident Assistant Medical Officer to the Bolton Union Workhouse at Fishpool, vice Bowkett, resigned.

SUTCLIFFE, A., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer for the Habergham Eaves District of the Burnley Union, Lancashire, vice Edwards, deceased.

WARD, A. G., M.R.C.S.E., has been appointed House-Surgeon to the West London Hospital, Hammersmith, vice Alderton, resigned.

WARNER, F. M.D., has been appointed Joint Professor of Forensic Medicine and Toxicology at Queen's College, Birmingham, vice Hill, resigned.

Births, Marriages, and Deaths.

BIRTHS.

ADAMS.—On the 16th inst., at Brooke House, Clapton, the wife of J. O. Adams, F.R.C.S., of a daughter.

BLYTHMAN.—On the 13th inst., at Swinton, the wife of Clement S. Blythman, M.B., of a daughter.

CHURCH.—On the 15th inst., at Harley-street, the wife of W. S. Church, M.D., of a daughter.

FIELD.—On the 11th inst., at Lower Seymour-street, Portman-square, the wife of George P. Field, Esq., M.R.C.S., of a daughter.

HARLEY.—On the 15th inst., at Saffron Walden, the wife of Edward Harley, L.R.C.P.L., of a daughter.

MACFARLANE.—On the 18th inst., at Walmer, Kilmarnock, the wife of Alex. W. Macfarlane, M.D., of a son.

WATSON.—On the 6th inst., at Tottenham, the wife of William Tyndale Watson, M.D., of a son.

MARRIAGES.

CLARK—ILBERY.—On the 12th inst., at the Parish Church, Childwall, John Barclay Clark, M.D., to Eleonora Elizabeth, daughter of G. J. Ihler, Esq.

CRACKLE—DOBSON.—On the 5th inst., at the Parish Church, by the Rev. Canon Hemmans, assisted by the Rev. W. O. Macdonald, T. A. Crackle, M.R.C.S.E., Ilkeston, Derbyshire, to Marian, second daughter of R. W. Dobson, Esq., of Holbeach, Lincolnshire. No cards.

DEATHS.

CHALDECOTT.—On the 18th inst., at Addlestone, Thomas Watts Chaldecott, M.R.C.S.E., aged 64.

EASTON.—On the 9th inst., accidentally drowned while bathing, John Alexander Easton, M.D., Resident English Physician to the Tharsis Company, at their Mines, Tharsis Huelva, Spain, only son of the late Dr. John A. Easton, Professor of Materia Medica in the University of Glasgow, aged 37. Friends will please accept this, the only intimation.

FISHER.—On the 11th inst., at Faversham, John Fisher, M.R.C.S.E., aged 28.

HENRY.—On the 14th inst., at Dalkey, co. Dublin, James Henry, M.D., aged 77.

O'BRIEN.—On the 7th March, at sea, on board the *Pontoon*, James Octavius O'Brien, M.R.C.S.E., aged 29.

TOTHILL.—On the 20th ult., at Charles-street, St. James's-square, of erysipelas, after ten days' illness, Frederick Disting Tothill, Esq.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

REPORT from the Court and the Board of Examiners of the Number of Candidates who have presented themselves for the Primary and Pass Examinations for the Diploma of Member of the College during the Collegiate Year 1875-76, showing the number who have passed and have been rejected from each Medical School during that period.

PRIMARY EXAMINATIONS.—1875-76.

Medical School.	Totals.	Number passed.	Number rejected.	Percentage of rejections.
St. Bartholomew's	99	73	25	1 in 3·96
Guy's	87·50	60	27·50	„ 3·18
University College	78·50	45	33·50	„ 2·34
St. Thomas's	57·50	35·50	22	„ 2·61
London	48·66	20	28·66	„ 1·70
King's College	37·50	26	11·50	„ 3·26
St. George's	33	20	13	„ 2·53
Middlesex	18·50	14	4·50	„ 4·11
St. Mary's	16·50	10	6·50	„ 2·53
Westminster	16·66	8·83	7·50	„ 2·17
Charing-cross	9·50	4	5·50	„ 1·73
Manchester	32·50	23	9·50	„ 3·94
Liverpool	24·66	13·83	11·50	„ 2·20
Birmingham	24	19·50	4·50	„ 5·33
Edinburgh	19·66	13	6·66	„ 3·05
Leeds	19	10	9	„ 2·11
Newcastle-on-Tyne	13·50	9·50	4	„ 3·37
Dublin	11·83	6·66	5·50	„ 2·15
Bristol	9	1	8	„ 1·12
Toronto	8·50	7·50	1	„ 8·50
Cambridge	6	4·50	1·50	„ 5·33
Glasgow	5·50	3·50	2	„ 2·75
Sheffield	4	2	2	„ 2·00
Aberdeen	3·83	2·50	1·33	„ 2·87
Montreal	3	3	...	„ 0·00
Melbourne	2·50	2·50	...	„ 0·00
New York	2·50	...	2·50	„ 1·00
Bombay	2	2	...	„ 0·00
Galway	1	1	...	„ 0·00
Caracas	1	...	1	„ 1·00
Cork	·50	...	·50	„ 1·00
Totals	760	443	257	2·72

PASS EXAMINATIONS.—1875-76.

Medical School.	Totals.	Number passed.	Number rejected.	Percentage of rejections.
University College	78·91	66·58	12·33	1 in 6·39
Guy's	77	59	18	„ 4·27
St. Bartholomew's	69·75	49·75	14	„ 4·85
St. Thomas's	41·41	33·58	7·83	„ 7·10
King's College	34	18	16	„ 2·12
St. George's	27·50	22	5·50	„ 5·00
London	21·50	16·50	5	„ 4·30
St. Mary's	15	12·00	3·00	„ 3·27
Middlesex	15	10	5	„ 3·00
Charing-cross	11·50	8·50	3	„ 3·83
Westminster	9·66	7·66	2	„ 2·20
Edinburgh	17·50	14	3·50	„ 5·00
Manchester	15·50	10·50	5	„ 3·10
Liverpool	13·83	9	4·83	„ 2·86
Leeds	13	6	7	„ 1·85
Birmingham	11	7	4	„ 2·75
Bristol	7·83	6·33	1·50	„ 5·22
Newcastle	6·75	3·25	3·50	„ 2·30
Cambridge	5·50	5	·50	„ 11·00
Dublin	5	2	3	„ 1·66
Toronto	4·66	2·83	1·83	„ 2·54
Belfast	3	2	1	„ 1·00
Glasgow	3	1	2	„ 1·50
Sheffield	2·83	1·33	1·50	„ 1·88
Bombay	2	2	·00	„ 0·00
Cork	1	1	·00	„ 0·00
Aberdeen	1	1	·00	„ 0·00
Montreal	1	1	·00	„ 0·00
Montpellier	1	1	·00	„ 0·00
New York	·50	·50	·00	„ 0·00
Paris	·33	·33	·00	„ 0·00
M'Gill	·33	·33	·00	„ 0·00
Galway	·33	·33	·00	„ 0·00
Totals 18th May, 1876.	493	377	121	4·11

BOOKS ETC. RECEIVED.

Dr. Ziemssen: Cyclopædia of the Practice of Medicine.
British Homœopathic Pharmacopœia.
Dr. Biesnier: Syphilis.
Dr. Roberts: On Urinary and Renal Diseases.
Mr. Tilden: Introduction to Chemical Philosophy.
Dr. Ringer: A Handbook of Therapeutics.
Dr. Legg: A Guide to the Examination of the Urine.
Dr. Duhring: Atlas of Skin Diseases.
Dr. Wagner: Manual of General Pathology.
Sanitary Work (Stagg).
Cosmos Scientifique, 1875.
Westminster Review. July.
Mr. Hanbury: Science Papers.
Report of a Drawing-room.
Conference on Boarding-out Pauper Children.
Bemrose's Great Western Railway Panoramic Guide.
Mr. Gant's Diseases of the Bladder.
Mr. H. Smith's Surgery of the Rectum.

Notes, Short Comments, and Answers to Correspondents.

HEALTH OF NAPLES.

THE mean mortality of Naples is from 35 to 44 per 1000—a sanitary result which can be due neither to her situation, which is salubrious, nor her climate, which is delightful. Couched on the slope of green hills, which sink gently into a spacious gulf; fanned by sea-breeze and mountain-air in incessant motion; sheltered from the keener and stronger winds by her surrounding peaks and the remoter Apennines; subject to the mildest barometric, magnetic, and thermometric oscillations; subsisting enjoyably on the farinaceous and fruit products which Nature affords in abundance,—Naples can have only herself to blame if she is not among the most enviable abodes on earth. "See Naples and die!" says the proverb in allusion to her lovely site and her genial sun. "Reside in Naples and die!" says the matter-of-fact registrar. It is but fair, however, to admit that the mortality above mentioned is found chiefly in her lower quarters, where a teeming population herd together in conditions which would be inadequately described by the epithet swinish. The slums of Naples, if the concurrent testimony of a host of witnesses be taken, are the worst in Europe, and their hideous inmates avenge themselves on the society which neglects them by periodically exploding in what may be termed a "morbific insurrection," and carrying disease and death into the abodes of their unworthy superiors. It is not only that the slow organic deterioration which takes the form of phthisis, for example, is a constant integer in the sum of Neapolitan disease; but the acute infections or contagions, typhus, small-pox, diphtheria, break out in sudden and virulent force, and carry danger and destruction far beyond their originating centres and into the strongholds of the most favoured classes. Dr. E. Fazio, in some interesting letters on the health of Naples, points out that in two important particulars the city is unhappily circumstanced: its dwelling-houses for the poor and its water-supply. For a population three times that of Rome there is accommodation one-fifth less! Again, the drinking-water runs contiguous to the drains, and, as these are often below the sea-level, they regurgitate and form a subsoil of filth, the ooze of which is a very seed-bed of typhoid. The sanitary rescue of Naples is a municipal rather than a medical undertaking; or, more strictly, it is one in which the municipality must work in concert with the most enlightened medical opinion.

CASE OF NEURALGIA OF THE LEFT SIDE OF THE TONGUE.

To the Editor of THE LANCET.

SIR,—The following case, so rare comparatively, may apologise for its publication.

E. L——, aged seventy-two years, a gentleman of excellent health and great activity, on the 27th April last drove from home, a distance of seventeen miles, the day being bitterly cold, and without his usual muffler around his throat. Nothing amiss was felt until, after the journey, he sat down to eat, and upon placing a bit of bread in his mouth there occurred most intense pain in the tip, side, and under surface of the left half of the tongue, and shooting up the face into the left ear. With much difficulty he got through a raw egg beaten up, and any further attempt at solids was attended with "dreadful agony," liquids being barely endurable.

He came under treatment about the 2nd May, when he complained of continual pain and uneasiness in the left side of the tongue, increased by any movement of the mouth, and with frequent dartings of pain into the left ear. Palpation of the apex and left half of the tongue caused increased suffering, but no pain was felt in the right half. There was no other tender part or spot about the face or neck; neither did he perceive any loss or alteration of taste at any time. He distinctly referred the pain to the left side of the tongue. By way of medication he was ordered the iodide of quina, grey powder, and Friedrichshall water. The left ear was cleansed, and small flying blisters were applied behind the ear and beneath the lobule for three or four days. The continued pain and discomfort then ceased, whilst the mouth was at rest, but the darting pain into the ear continued. Then followed the hypophosphite of soda and quina in increasing doses. A plate of "false" upper teeth were removed, and galvanism applied to the tongue and maxillary nerves by means of Mayer and Meltzer's portable battery. After the first application the patient was able to speak and drink with comfort, and the dartings diminished. Soft solids could be taken after the second, all pain ceased, and after the third and final application he reported himself "quite well again." He was ordered to continue medication a while longer. During the treatment his general health did not suffer. The pulse stood at 72, with the exception of one day, and normal; the urine was likewise normal. He considers that he derived most and immediate benefit from the galvanism. With respect to this, one sponge was applied to the left half of the tongue, and the other in turn to the maxillary and seventh nerves. At first the upper nerve seemed the more sensitive, then they became equally so, and the tip, side, and under surface much more sensitive than the upper surface, and reproduced the severe darting pains into the left ear. In galvanising the tongue for tinnitus aurium I have noticed the same severe pain run up into the ear. Does this further show the chorda tympani to be a sensory as well as a motor nerve to the lingualis, which is situate on the under surface of the tongue, and extending from the base to the apex, precisely in the seat of increased pain? Nothing is here claimed for the treatment of the case, which lasted for about three weeks.

Yours truly,

Newcastle-on-Tyne, July, 1876. LUCIUS HOLLAND, M.B., M.C., &c.

E. H.—There is no absolute standard of fees. Medical practitioners have the matter in their own hands. They are not bound to give the certificates, and they should ask for and receive the fees *before* they fill up the papers.

PECULIAR CASE OF PHLEBITIS.

IN *L'Union Médicale* of July 13th, a young medical student has published his own case, which presents unusual features. On the 26th of January, 1875, he performed at the Charité Hospital of Paris an autopsy upon a man who had died of cirrhosis of the liver. In opening the thorax, he met with a slight scratch on the index-finger of the *left* hand close to the nail; the epidermis only had been wounded, as no blood could be obtained. In less than five minutes he was seized with violent shivering, which forced him to go to bed, where he tried in vain to recall the warmth of the body. Inflamed lymphatics were soon discovered on the dorsum of the hand, and considerable feverishness supervened. M. Dolbeau advised rest, diaphoresis, and tonics. The axillary glands increased rapidly, and the little wound of the finger began to suppurate. As no improvement took place, the patient went to his native place towards the south of France, and there was attacked with severe pain in the *right* gluteal region, which soon became localised in the leg of the same side. Here the veins running from the ankle to the knee were transformed into hard cords. The leg now swelled enormously, the patient fell into a typhoid state, and at last obtained some relief by opening a large abscess which had formed about the calf. The illness, however, lasted a long time, with occasional slight improvements, and it was fully six months after the infliction of the wound ere, after much suffering, he became convalescent.

ON THE TREATMENT OF SPRAINS.

To the Editor of THE LANCET.

SIR,—Who does not recollect the treatment of sprains some forty years ago? The ten, twenty, or thirty leeches, according to the severity of the case; the cold lotion, the purgative, the saline, the gruel; then the slow convalescence from general weakness or chronic inflammation of the joint; after this the liniment, then the blister, and eventually perhaps the somewhat premature disappearance of the patient from the scene, for the purpose ostensibly of getting fresh air, but really to consult some fashionable quack. I, for one, can bear my testimony to the above practice, having myself endorsed it, and to the results, for they are within my experience. Mr. Aston Key used to say in his lectures: "When called to a sprain you may apply heat or cold according to the feelings of your patient; but, on the whole, I recommend hot applications." For thirty years it has been my practice to follow my leader, and to use heat in every case. There can be little doubt that the rest enjoined and instinctively employed by the patient, whether enjoined or not, has much to do with the result in either case and it is equally true, according to my experience, that by far the best adjuvant to rest is heat and moisture properly applied. I use the word "properly" advisedly, because for a long period the topical treatment was neither hot nor cold, but a compound of the two—blowing hot and cold, as it is said, and this from sheer carelessness. A flannel steeped in hot water was used by the advocates of the hot system; lint saturated in cold water by those who adhered to the cold. By midnight in either case the application had become lukewarm, and the case might be said to have been conducted through its stages by rest *plus* moisture, regardless of temperature. That the employment of rest was the almost sole and efficient agent in the cure may be inferred from the labours of Mr. Hilton, who by his writings has emphasised this element, rest, as one of the most powerful in the agenda of surgery. But to return. Heat and moisture, if applied in a slovenly way, will mar the whole. For a sprained ankle, take a piece of lint of such size that when folded thrice it shall be four inches wide and twenty inches long—sufficiently wide and long, in other words, to completely envelope the joint; let this be soaked in boiling water, squeezed out gently, and applied to the limb. Next, take a piece of thin gutta-percha shaving or oiled-silk, two inches wider than the folded lint, on which it is laid, with a margin an inch wide above and below, which lies in contact with the skin and prevents evaporation. Lastly, over the whole apply a bandage, and tie the limb on a pillow with two pieces of tape.

The results, as a rule, are—1st. Marked and sensible subsidence of pain, and this, curiously enough, often more rapid as the accident is more severe. 2ndly. On removing the application in twelve hours, the surface has become wrinkled, pale, sodden, instead of being smooth, red, and tense. The lint is now reapplied for another twelve hours. On its removal, the appearance is rather ominously suggestive of the possibility of the entire skin peeling off in one massive flake, so parboiled and unattractive does it look; but depend upon it the soaking has done a good work, as evidenced by the comfort of the patient. A dry bandage is now used, and, at the end of another twenty-four hours, gentle friction with soap liniment.

I need not enlarge, my object being not to dictate, but simply to reiterate that, after an experience of thirty years, I have no reason to speak save in the most unqualified terms of praise of a method of treating sprains which to me seems all but unexceptionable.

I remain, Sir, yours truly,

Tunbridge, Kent, July, 1876. JOHN GORHAM, M.R.C.S.

THE BRAVO CASE.

IN reply to numerous correspondents, we take the opportunity of stating that, while the cause of death in the case of the late Mr. Bravo is *sub judice*, we cannot publish either letters or comments on the matter. When the case is finished, we shall deal with the medical questions involved in detail.

INDIA-RUBBER STOMACH TUBE.

To the Editor of THE LANCET.

SIR,—I may state, for the information of Dr. Ward, of Seascales, that Messrs. Maw, Sons, and Thompson, of London, manufacture and supply the *india-rubber stomach tube* Dr. Ward *suggests*. This form of tube has been in almost daily use in this asylum for two years or thereabouts, and is as efficacious as the other, and more safe. I am aware that it is used in several asylums. Yours truly,

J. A. CAMPBELL, M.D.

Cumberland and Westmorland Asylum, Garlands, Carlisle, July 15th, 1876.

SUNSTROKE AND ALCOHOL.

THE necessity of temperance in drink on the part of those whose avocations lead them to be exposed to the sun this weather cannot be too forcibly urged. Over and over again in India the immunity from sunstroke enjoyed by temperate men has been observed. It may be interesting now to recount Sir Charles Napier's description of his personal seizure while serving in India (as reported in Sir Ranald Martin's excellent work, "The Diseases of Tropical Countries"): "I had hardly," writes Sir Charles, "written the above sentence when I was tumbled over with heat apolexy; forty-three others were struck, all Europeans, and all died within three hours, except myself. I do not drink. That is the secret. The sun had no ally in liquor in my brain."

A Trustee.—The advantage is that he will be sooner eligible for public appointments.

SUBCUTANEOUS INJECTION OF QUININE.

To the Editor of THE LANCET.

SIR,—As a "Note on the Subcutaneous Injection of Quinine," by Surgeon-Major G. Y. Hunter, Presidency Surgeon, Bombay, in outer issue of April 8th, is calculated to deter members of the profession from the trial of what I consider a most effective and safe mode of administering the drug, I am induced to send you the result of my experience.

I first administered quinine hypodermically about two years and a half ago, and since then I may say that almost every one of my adult patients suffering from malarious fever, or other affections in which quinine as an antiperiodic was indicated, have had it so administered to them. They have consisted chiefly of fighting men of the corps, their families, camp-followers, and the inhabitants of the station and neighbouring villages, and no selection of cases has been made for this mode of administration. The number of cases so treated during the two years and a half has been probably 600. In the vast majority of cases I find that a single injection of five grains is sufficient to prevent a recurrence of the febrile paroxysm; occasionally a second, and, very rarely, a third has been necessary. To say nothing of the economy of expenditure of this expensive drug, the certainty and rapidity of effect render this treatment of malarious fevers greatly superior to any I have had experience of. I have found it equally effective in cases of intermittent neuralgia.

Dr. Hunter, in his article referred to, acknowledges that the treatment was very successful as far as the fever was concerned; but he states that out of the total cases so treated by him, only two escaped disagreeable local effects—inflammation, abscess, or ulcer; and it is on this point that my experience differs so entirely from his. In two cases only out of about 600 have I met with anything approaching to suppuration. The first of these was a badly constitutioned camp-follower, who absented himself for about a week after injection, when he returned with an abscess, which was followed by an ulcer, which took several weeks to heal. The second case was a sepoy, who had been discharged to duty, but returned a few days after with his arm swollen and fluctuating. When opened with a lancet, a small quantity of glairy fluid escaped; there was no purulent discharge, and the man left the hospital well in about three days.

My general custom has been in those simple, uncomplicated cases of ague, which are nearly always quotidian, to discharge the patient from hospital when there was no paroxysm for two days, whatever the treatment may have been, and the cases in which it has been necessary to keep men for a single day longer on account of the local pain and stiffness from the injection have been very few, probably not one in twenty or thirty, and, except the two cases mentioned above, I do not remember any man's discharge having been delayed for three days.

There must, of course, be more or less pain in the operation; but I know from personal experience that this is slight. Occasionally natives, recognising the efficacy of the treatment, have come to me asking for the injection.

For the first eighteen months I was in the habit of using the common sulphate (disulphate) of quinine, dissolving one drachm in the ounce of pure rain-water, with just sufficient sulphuric acid to keep it in solution, and no more. Latterly I have used only the neutral (soluble) sulphate, which does not require acid for solution. In cold weather, to keep the salts in solution, it may be necessary to heat the fluid, which is most readily accomplished by placing the phial containing it in an outer vessel of warm water. Forty minims of the solution, containing just five grains of the salt, is used for each injection.

The following precautions are, I consider, imperative:—Have the solution carefully filtered; have the syringe perfectly clean; be certain that the needle is well under the skin into the loose cellular tissue; after withdrawing the needle, knead the parts most carefully, so that the fluid is thoroughly dispersed through the cellular tissue. A syringe, with a simple sliding piston, without screw action, and containing just forty minims, is the most convenient.

I think that if Dr. Hunter tried the above solution with these precautions, he would find himself less embarrassed by disagreeable local sequelæ, even if his cases for this mode of treatment were not selected.

There are medical officers in India who have had much longer and larger experience of this mode of administering quinine than I have had, and I hope they may be induced by the perusal of Dr. Hunter's unfavourable report of the practice to add their testimony to mine in support of a treatment of malarious fever which I believe to be superior to every other.

Yours truly,

A. D. CAMPBELL, M.D.,

Central India, May 8th, 1876. Surgeon-Major, Malwa Bheel Corps.

RUPTURE OF SYMPHYSIS PUBIS DURING LABOUR.

A CASE of Rupture of the Symphysis Pubis during Labour is reported in the last number of the *Boston Medical and Surgical Journal*. The facts are briefly as follows:—Patient a primipara, well formed, forty-two years old. Liquor amnii escaped twenty-four hours before labour began. Head for about eight hours fixed in the brim of the pelvis. Os rigid, undilated. Presentation vertex, second position. Bladder emptied, and forceps applied. During strong expulsive pains, traction was made with the instrument in direction of the axis of the brim, when the symphysis pubis gave way with a loud crack. The labour was then rapidly completed. By the latest account the woman and child were doing well.

BEST COPY AVAILAB

INJECTION OF CHLORAL INTO THE VEINS.

THIS practice has been decidedly condemned by most of the Paris surgeons; but M. Oré, of Bordeaux, clings to his method, and has proved that the dangers are not so great as have been described. He has lately had the support of M. Linhart, a surgeon in the Austrian navy. It was a case of dislocation of the right shoulder-joint. Reduction without anæsthesia was found impossible, and as the patient had on two previous occasions been narcotised with chloroform, and had suffered severely from the use of this substance, M. Linhart resolved to inject chloral into a vein. This was done in the left arm with great caution, and the solution was injected so that in fourteen minutes about 105 grains of chloral were absorbed. Complete anæsthesia without any reflex movements was thereupon obtained. Reduction quite easy. The patient slept for half an hour, and on being roused had some drink, and fell again to sleep for several hours. No vomiting or any nausea. M. Linhart thinks that the man might have been narcotised with chloroform, but that he would have required a good deal of it, and that the effect which, with the chloral, lasted almost two days, would, with chloroform, have been more transient. It may be doubted whether these are sufficient reasons for running the risks of intra-venous injection.

ARMY MEDICAL SERVICE IN INDIA.

To the Editor of THE LANCET.

SIR,—To a casual observer the New Warrant appears enticing, but its numerous weak points become apparent on closer scrutiny, showing the prospects of the short-service surgeon to be infinitely inferior to the last-joined surgeon under the old Warrant.

For instance, a candidate who now joins has to go to Netley for a four months' course of study, and whilst there receives pay at the rate of *5s.* a day. On completing this course he stands first on the roster for foreign service, and in the ordinary course of events goes to India, as the other foreign stations are limited for juniors. It has been ruled that the short-service man in India is to receive only the same rate of pay as a man under the old Warrant—namely, 317 *r.* and 433 *r.*, according to his relative rank of lieutenant or captain; and allow me here to remark that this pay is acknowledged to be only equal in value to half the amount in England, and is only sufficient to maintain a man of the most frugal habits. At the expiration of five years, unless invalided in the meantime, he gets a tour of home service, and for the first time receives the much-vaunted high pay, £250 a year, which he is allowed to enjoy for about two years, the average period of home service; when, for the second time, he is again ordered, the chances are, to India, where he remains till he completes ten years' service, when he is gracefully dismissed with no other acknowledgment for the best years of his life than a gift of £1000, and an enlarged liver.

Now we will take the case of the surgeon under the old Warrant. He, too, went to Netley, and then to India, returning home on completing five years' foreign service, by which time he has become entitled to an increase of *2s.* 6*d.* a day pay, making a total of 12*s.* 6*d.* a day; whereas the short-service man draws at the rate of a fraction over 13*s.* 8*d.*, or 1*s.* 2*d.* a day more than the old Warrant man of the same service—surely not sufficient to compensate for the uncertain tenure of his appointment, and being sent adrift after ten years, with an impaired constitution, and a £1000 bonus; unless, indeed, he happens to be one of the fortunate six selected yearly for permanent service; whereas, long before this time, the old Warrant man has qualified for a pension for ill-health, and, on completing ten years' service, secures a pension for his wife in case of his death.

The above, too, is the bright side of the short-service surgeon's career, and does not take into account the chances he runs of being invalided long before he qualifies for even the smallest bonus, and the great chances he runs of permanently impairing his health by tropical service, rendering him unfit for private practice, even backed up by the £1000 to buy a practice. Indeed, ten years' military service under any circumstances is just the thing to unfit a man for private practice.

Nor is the young surgeon to forget that the many grievances complained of by the department have not been redressed in the new Warrant. On the contrary, by the old Warrant a surgeon-major of twenty years' service ranked with a lieutenant-colonel, but junior, *except for choice of quarters!* but by the new Warrant he ranks junior under all circumstances; whilst in the commissariat, relative rank carries all advantages, though in this department are many officers who were originally in the late purveyor's department—a subordinate of the medical now placed before the latter in the Army List, and receiving the full advantages of relative rank.

Yours truly,

June 29th, 1876. A. M. D.

SPIRITS, WINE, AND TOBACCO.

IT is interesting to learn from the recently published Customs Report that, while the imports of wine, brandy, rum, gin, &c., showed last year a considerable increase, the importation of tobacco, both manufactured and unmanufactured, has diminished very considerably, and in about an equal ratio.

M. J. P., (Birmingham.)—The most recent addition to the already numerous assortment of works on Children's Diseases is that of Dr. A. von Hüttenbrenner. It is eminently practical, and, without preface or introduction, it begins with diseases of the brain; goes through the various organs from the nose to the genitals; is very particular on the skin, and winds up with the spinal cord. The publisher is Braumüller, Vienna.

MANCHESTER WORKHOUSE.

To the Editor of THE LANCET.

SIR,—In your issue of to-day I observe a paragraph, in which you refer to an alleged conflict of authority between the master and medical officer of the Manchester Workhouse. Permit me, as visiting medical officer to the Manchester Workhouses, to say that I am not aware of the existence of any such differences.

I am, Sir, yours &c.,

Manchester, July 15th, 1876. JAMES HARDIE.

A CASE OF LITHOPÆDION.

AT a meeting of the Medical Society of Vienna of June 16th, 1876, Dr. Chiari showed a tumour taken from a woman, eighty-two years of age, who had lately died in the hospital of an attack of pneumonia. By the side of the uterus, which was very long, a swelling the size of a man's head was found, and on opening it most of the parts of a fœtus were discovered. The woman stated that in 1827 she was for the last time in the family way. After the eighth month she felt no approaching confinement, and went on, without experiencing any pain, with a large tumour in the abdomen. She never consulted anyone about it, and lived on for fifty years with the unsightly swelling. Dr. Chiari, after a minute examination of the pelvic cavity, concluded that this was a case of abdominal pregnancy.

Mr. Moberley is thanked.

"RENAL PULSE."

To the Editor of THE LANCET.

SIR,—Having for more than a quarter of a century given special attention to renal disease, and being still only a learner, I shall feel greatly obliged if your esteemed correspondent, Dr. Wilson, who favoured us with a paper on "Cerebral Hæmorrhage" in your last week's journal, will kindly explain to me the meaning of the following words:—"Pulse 72, indicative of renal disease."

As far as I can recollect at this moment, I never heard of any particular form of pulse being indicative of renal disease, and, in the hope of finding a solution to the assertion in the history of the case, I carefully read all that was said regarding the condition of the patient's pulse, and I extract from it the following particulars:—

"April 29th.—8.30 P.M.: Pulse very weak, barely 60.—11.30 P.M.: Pulse fuller, but not quickened, 60.

"30th.—10 A.M.: Pulse very irregular, from 60 to 70.—11 P.M.: Pulse 80, easily compressed.

"May 1st.—Pulse 62, small, still very irregular.—10 P.M.: Pulse risen to 72.

"2nd.—Pulse 70.

"3rd.—Pulse 70-75.

"4th.—Pulse 80, irregular.

"7th.—Pulse 87.

"12th.—Pulse 68.

"16th.—Pulse 54, very weak."

At the post-mortem examination the kidneys were found "each three and a half ounces; capsules adherent; numerous large cysts existed in the cortical portion, which was in a granular condition."

In the concluding remarks it is further stated that "it must be remarked that the pulse was not quickened, its volume only increased, nor did repeated stimulation sensibly decrease it."

I venture to call Dr. Wilson's attention to this point from no unkind motive; but purely and simply with desire for knowledge, as it seems to me, that if his remark upon the condition of the pulse being indicative of renal disease surprised one who fancies himself well versed in the pathology of all renal affections, it cannot fail to have made an impression on the minds of others not quite so conversant with the subject.

On going carefully over the conditions of the pulse as given in the paper, I fail to notice any single peculiarity in it that would lead me to the diagnosis of kidney disease, and therefore, as I said before, I shall feel indebted to Dr. Wilson if he will kindly enlighten me on the subject.

Faithfully yours,

July 17th, 1876. G. H.

DANGEROUS ICE.

WE last week reported the occurrence of a serious epidemic in America caused by the consumption of impure ice. In Dr. Whitmore's last monthly report a warning is given to the public on this head. He states that a large quantity of ice, apparently clear and transparent, is now sold, which, when melted, gives a considerable amount of dirty sediment, apparently of vegetable matter. Ice which, when dissolved, becomes a turbid fluid should always be rejected.

Mr. W. Berry.—We cannot make a promise.

CASE OF EXCESSIVE PTYALISM DURING PREGNANCY.

To the Editor of THE LANCET.

SIR,—I am induced to send the following case for perusal by your numerous readers, in the hope of some treatment being suggested by which my patient may obtain relief.

MRS. ——, aged thirty-four, mother of three children, and now about six months advanced in her fourth pregnancy, has suffered (from the third week from conception) extreme distress from a continual flow of saliva, which pours down the corners of her mouth, so as quite to have excoriated them. The quantity which flows away is about three pints daily. During sleep it ceases, but begins again an hour or so after awaking. In the earlier months vomiting was added to her troubles, but this has now passed off, but she still suffers from nausea. After meals she complains of a sour taste in her mouth, but this merely lasts an hour or so. The character of the secretion is quite watery and tasteless, though occasionally it assumes a thicker condition, and has to be retched or expectorated up from the back of the throat. She has used astringent waters for the mouth, and as she has excessive dislike to taking medicines internally, I suggested that belladonna liniment (B.P.) should be rubbed into the submaxillary and parotid glands as well as the epigastrium until she was under its influence; but neither of these plans of treatment produced the slightest effect. Her appetite is fairly good.

In the pregnancy previous to this one she suffered in the same way from ptyalism; but it did not commence until after the third month, and only lasted a few weeks.

I am, Sir, yours &c.,

July 14th, 1876. INQUIRENS.

*** Ptyalism, when it occurs during pregnancy, usually comes on in the early months, and lasts for about three weeks. In severe cases no treatment seems to have any effect.—ED. L.

OPY AVAILABLE

POISONS versus ALCOHOL.

THE new number of the *British and Foreign Medico-Chirurgical Review* contains a judicious and temperately written article on "The Use of Alcohol," in which the following fact is related, which partakes very much of the nature of an experiment:—

"In the summer of 1872 it was necessary to shift the rails on upwards of 500 miles of permanent way on the Great Western line from the broad to the narrow gauge, and there was only a fortnight to do it in. The work to be got through was enormous; for the Great Western is one of the few English lines whose rails are held down by bolts screwed into nuts. All these had to be unscrewed and replaced after moving the heavy rail two feet—a very different operation to prizing out a spike, shifting a rail a few inches, and hammering in a spike again. About 3000 men were employed, and they worked double time, sometimes from four in the morning till nine at night. Not a soul was sick, sorry, or drunk, and all was ready for a down train due on Saturday evening, June 20th. What was the extraordinary support of this wonderful spurt of muscular energy? Weak *skilly!* To spare every ounce of strength, the men were hutted along the line, and brought with them bacon, bread, cheese, cocoa, &c., to provide their usual meals at usual times, but no beer, spirits, or alcoholic drink in any form. A pound and a half of oatmeal and half a pound of sugar were allowed to each man daily, and to every gang of twenty-one a cook was told off. The first thing done in the morning was to breakfast, and then the cook and his cauldron started along the line till water was found convenient, and a fireplace of stones was built, and the pot boiled. Oatmeal was then sprinkled into it with sugar, and thoroughly well boiled until their gruel was made. Buckets were filled, and carried round with small panikins to convey it to the thirsty men. They liked it exceedingly, and learned by experience the importance of having it well cooked."

Here is a very old and well-known agent, cheap enough and easily procured, capable of imparting "staying" power, better probably than anything else, which is not employed to anything like the extent it might be with advantage.

ERRATUM.—In Dr. John M. Hunter's paper, published last week, in line 6 of second paragraph, for "shaped like the letter W," read "shaped like the letter U."

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Wilks, London; Dr. Burdon-Sanderson; Dr. Fothergill, London; Mr. F. Mason, London; Dr. Aveling, London; Dr. Dillard, Riverville, U.S.; Dr. Turner, Samoa; Mr. Ingpen, London; Dr. Roy, Bengal; Dr. Whistler, London; Dr. Ellis, Newcastle; Dr. M'Connell, Calcutta; Dr. R. S. Smith, Clifton; Mr. Haviland; Dr. Hime, Sheffield; Mr. Banks; Mr. Hewer, Formby; Dr. White; Mr. H. Jones, Dublin; Dr. Holdsworth, Wakefield; Mr. Ball, London; Mr. Wartenberg, Manchester; Dr. Fenwick, London; Dr. Gill, London; Mr. Blackburn, Barnsley; Mr. Grosholz, Cheetham; Mr. Rice, Manchester; Mr. Moberley, London; Mr. Goldingham, Worcester; Mr. Tripe, Hackney; Mr. Kemp, London; Dr. Deane, Nacon, South Australia; Mr. Sergeant, London; Mr. Evans, Belmain, New South Wales; Mr. Colton, New York; Mr. Mosely, Goderich, Ontario; Mr. Blackett, London; Dr. Alcock, Aldershot; Dr. Rayne, Manchester; Mr. Tottenham, Carrymore; Mr. Volckman, London; Mr. Alderton, Hammersmith; Dr. Pope, London; Mr. Lake, Plymouth; Mr. Reid, Clacton; Dr. Hooper, London; Mr. Berry, Wigan; Dr. Campbell, Carlisle; Mr. Hardie, Manchester; Dr. Day; Mr. H. Green, London; Mr. MacAdam, Barbadoes; Mr. Mahon, Woburn; Dr. J. M. Hunter, Devonport; Mr. Cooper, Ware; Mr. Burton, Chelmsford; Mr. Elvey; Mr. Adams, Liverpool; Mr. Grant, Gundle; Mr. Chater, Derby; Mr. Rodney, Bath; Mr. Lee, Watford; Mr. Wright, Oswestry; Mr. Pervy, Woolwich; Mr. Thompson, Peterborough; Mr. James, Deal; Mr. Cooke, Reading; Mr. Holmes, High Beech; Mr. T. Harvey, Colcford; Mr. R. Kerry, Stirling; Dr. Hailey, Claughton; Dr. Dickson; Dr. Thomas, Glasgow; Dr. Harman, Downton; Mr. Collings; Mr. Arthur, Somerville; Mr. Lawrence; Mr. Harris; Mr. Ormsby, Aberford; Mr. Hucklehurst, Holme Chapel; Mr. Hyde, Inverness; Mr. Vawdrey, London; Dr. E. V. E., Croydon; M.A., M.D.; Veritas; G. H.; A Hospital Nurse; Uniform, Scarlet Facings, Black Velvet; S. W.; Lienico; A Victim; A Stranger; The Registrar of the College of Physicians; Nemo; Fair Play; The Registrar-General; The Registrar-General of Edinburgh; Surgeon; An Army Medical Officer; H. A. B.; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Wheeler, Manchester; Messrs. Bradshaw, Nottingham; Mr. Jennings, Colcford; Mr. Milner, Barnsley; Dr. Macfarlane, Kilmarnock; Mr. Cornish, Kingsbridge; Messrs. Cadbury Brothers, Birmingham; Mr. Jarman, Huddersfield; Messrs. Wotherspoon and Co., Glasgow; Messrs. Jolly and Co., Norwich; Dr. Eberle, Easingwold; Rev. A. J. D. D'Orsay, London; Mr. Dicey, Northampton; Mr. Greg; Mr. Crackle, Nottingham; Nemo, Hull; Medicus, Edinburgh; T. J. P., Manningtree; Gamma, Derby; Medicus, Glasgow; M.D., Harlingdon; R. S., Montgomery; A. B., London; Alpha; H. R., Petersfield; E. R. M.; M. E., London; Medicus, Aberdare; A. B., Walmer; B.; Dilpha; Medicus, Petworth; E. R. S., Tring; M.D., Worthing; J. T., Tooting; A. W. G. P., Abergavenny.

Newcastle Daily Chronicle, Pharmaceutical Journal, Welshman, Examiner, Solicitors' Journal, Land and Water, Broad Arrow, Spectator, Liverpool Daily Post, Manchester Guardian, East London Observer, Western Times, Metropolitan, Bath Chronicle, Cork Constitution, Barnsley Chronicle, Jamaica Gazette, Macclesfield Courier and Herald, Surrey Advertiser, Leeds Mercury, Graphic, Canada Lancet, Record, Weston Mercury, Malvern News, Montrose and Brechin Review, Daily Bristol Times and Mirror, Malvern Advertiser, and *American Socialist* have been received.

METEOROLOGICAL READINGS

(Taken daily at 9 a.m. by Steward's Instruments.)

THE LANCET OFFICE, JULY 20TH, 1876.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rainfall	Remarks at 9 A.M.
July 14	30·44	E.	64	72	114	89	60	...	Hazy
„ 15	30·44	W.	67	73	120	92	64	...	Hazy
„ 16	30·39	W.	67	82	121	93	62	...	Bright
„ 17	30·23	W.	68	77	123	92	66	...	Bright
„ 18	30·28	S.E.	60	65	108	83	58	...	Hazy
„ 19	30·08	W.	63	70	114	89	62	...	Cloudy
„ 20	30·24	W.	62	68	108	79	63	...	Hazy

Medical Diary for the ensuing Week.

Monday, July 24.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, July 25.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 3 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, July 26.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, July 27.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, July 28.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
QUEKETT MICROSCOPICAL CLUB.—8 P.M. Annual General Meeting.

Saturday, July 29.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

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In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

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